SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR PREPARATION AND THE COMPANY

1.1 Product Identifier

Product Name: DPM Primer XFH (Resin) Part A

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

Material uses: Relevant uses: Resin. For professional users/industrial 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

Company Name: Polycote UK LLP
Centre Point
Wolseley Road
Woburn Road Industrial Estate
Kempston
Beds
MK42 7EF

Telephone Number: 01234 846400

Emergency Contact Number: 111 (NHS England)

Email address: uksales@polycote.com

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

GB CLP Regulation:

Classification of this product has been carried out in accordance with GB CLP Regulation.
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

GB CLP Regulation:

Signal word: Warning

Hazard pictograms:

Hazard statements:
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.

Precautionary statements:
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P264: Wash thoroughly after use.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/respiratory protection/eye protection/protective footwear.
P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
P337+P313: If eye irritation persists: Get medical advice/attention.
P391: Collect spillage.
P501: Dispose of the contents and/or its container in line with regulations on dangerous waste or packaging and waste packaging respectively.

Supplementary information:
EUH205: Contains epoxy constituents. May produce an allergic reaction.
Contains Pine oil.
EUH211: Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

Substances that contribute to the classification: reaction product: bisphenol-A-(epichlorhydrin) (MW < 700); Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol; oxirane, mono[(C12-14-alkyloxy)methyl] derivs.

2.3 Other hazards: Product fails to meet PBT/vPvB criteria

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: Mixture composed of additives and epoxy polymers

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: 25068-38-6	**reaction product: bisphenol-A-(epichlorhydrin) (MW < 700)** Aquatic Chronic 2: H411; Eye Irrit. 2: H319; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Warning 	**50 - <75 %**

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS (continue)

Identification	Chemical name/Classification	Concentration
CAS: 9003-36-5	**Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol** Aquatic Chronic 2: H411; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Warning	**25 - <50 %**
CAS: 68609-97-2	**oxirane, mono[(C12-14-alkyloxy)methyl] derivs** Skin Irrit. 2: H315; Skin Sens. 1: H317 - Warning	**10 - <15 %**
CAS: 13463-67-7	**Titanium dioxide (aerodynamic diameter ≤ 10 µm)** Carc. 2: H351 - Warning	**1 -<3 %**
CAS: 8002-09-3	**Pine oil** Aquatic Chronic 2: H411; Asp. Tox. 1: H304; Eye Irrit. 2: H319; Flam. Liq. 3: H226; Skin Sens. 1: H317 - Danger	**0.1 -<0.3 %**

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

Other information:

Identification	Specific concentration limit
reaction product: bisphenol-A-(epichlorhydrin) (MW < 700) CAS: 25068-38-6	% (w/w) >=5: Skin Irrit. 2 - H315 % (w/w) >=5: Eye Irrit. 2 - H319

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: This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

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: FIRE-FIGHTING MEASURES

5.1 Extinguishing media:

Suitable 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.

Unsuitable extinguishing media IT IS RECOMMENDED NOT to use full jet 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,...).

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: 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. Remove 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.

SECTION 6: ACCIDENTAL RELEASE MEASURES (continue)

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 destroy using safe methods (section 6).

B.- Technical recommendations for the prevention of fires and explosions
Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Consult section 10 for 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.- Technical measures for storage
Minimum Temp: 2 °C
Maximum Temp: 35 °C
Maximum time: 24 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 limit		
2-methoxy-1-methylethyl acetate CAS: 108-65-6	WEL (8h)	50 ppm	274 mg/m³
	WEL (15 min)	100 ppm	548 mg/m³
Titanium dioxide (aerodynamic diameter ≤ 10 µm) CAS: 13463-67-7	WEL (8h)		4 mg/m³
	WEL (15 min)		

Biological limit values:

BIOLOGICAL MONITORING GUIDANCE VALUES (BMGVS) - EH40/2005

Identification	NULL	NULL	NULL
Reaction mass of ethylbenzene and xylene CAS: Non-applicable	1030 mg/g (NULL)	Methyl hippuric acid in urine	Post shift

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	Non-applicable	Non-applicable	0.75 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	4.93 mg/m³	Non-applicable
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol CAS: 9003-36-5 EC: 500-006-8	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	104.15 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	29.39 mg/m³	Non-applicable
oxirane, mono[(C12-14-alkyloxy)methyl] derivs. CAS: 68609-97-2 EC: 271-846-8	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	1 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	3.6 mg/m³	Non-applicable

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continue)

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	Non-applicable	Non-applicable	0.5 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	0.0893 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	0.87 mg/m³	Non-applicable
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol CAS: 9003-36-5 EC: 500-006-8	Oral	Non-applicable	Non-applicable	6.25 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	62.5 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	8.7 mg/m³	Non-applicable
oxirane, mono[(C12-14-alkyloxy)methyl] derivs. CAS: 68609-97-2 EC: 271-846-8	Oral	Non-applicable	Non-applicable	0.5 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	0.5 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	0.87 mg/m³	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	0.065 mg/kg	Marine water	0.001 mg/L
	Intermittent	0.018 mg/L	Sediment (Fresh water)	0.341 mg/kg
	Oral	0.011 g/kg	Sediment (Marine water)	0.034 mg/kg
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol CAS: 9003-36-5 EC: 500-006-8	STP	10 mg/L	Fresh water	0.003 mg/L
	Soil	0.237 mg/kg	Marine water	0 mg/L
	Intermittent	0.025 mg/L	Sediment (Fresh water)	0.294 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0.029 mg/kg
oxirane, mono[(C12-14-alkyloxy)methyl] derivs. CAS: 68609-97-2 EC: 271-846-8	STP	10 mg/L	Fresh water	0.106 mg/L
	Soil	1.234 mg/kg	Marine water	0.011 mg/L
	Intermittent	0.072 mg/L	Sediment (Fresh water)	307.16 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	30.72 mg/kg

8.2 Exposure controls:

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

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<UKCA marking>>. 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	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	Protective gloves against minor risks	Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN 420:2004+A1:2010 and EN ISO 374-1:2016+ A1:2018

As the product is a mixture of several substances, the resistance of the glove material cannot 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	Panoramic glasses against splash/projections.	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
	Work clothing	Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continue)

Pictogram	PPE	Remarks
	Anti-slip work shoes	Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 20345:2012 y EN 13832-1:2007

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

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:	Several
Odour:	Characteristic
Odour threshold:	Non-applicable *

Volatility:

Boiling point at atmospheric pressure:	156 °C
Vapour pressure at 20 °C:	433 Pa
Vapour pressure at 50 °C:	2454.02 Pa (2.45 kPa)
Evaporation rate at 20 °C:	Non-applicable *

Product description:

Density at 20 °C:	1102.7 kg/m³
Relative density at 20 °C:	1.103
Dynamic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 40 °C:	>20.5 mm²/s
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:	Immiscible
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *

Flammability:

Flash Point:	Non Flammable (>60 °C)
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	315 °C
Lower flammability limit:	Non-applicable *
Upper flammability limit:	Non-applicable *

Particle characteristics

Median equivalent diameter:	Non-applicable

9.2 Other information

Information with regard to physical hazard classes:

Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *
Corrosive to metals:	Non-applicable *
Heat of combustion:	Non-applicable *
Aerosols-total percentage (by mass) of flammable components:	Non-applicable *

Other safety characteristics:

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 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	Precaution	Precaution	Not applicable

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Avoid direct impact	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: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous 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: 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: 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.

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. However, it contains substances classified as dangerous with carcinogenic effects. For more information see section 3.
- IARC: Hydrocarbons, C9, aromatics (3); Titanium dioxide (aerodynamic diameter ≤ 10 µm) (2B); Reaction mass of ethylbenzene and xylene (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, as it does not contain substances classified as hazardous 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: 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.
- 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. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

Other information:

CAS 13463-67-7 Titanium dioxide (aerodynamic diameter ≤ 10 µm): The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter ≤ 10 µm

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
reaction product: bisphenol-A-(epichlorhydrin) (MW < 700) CAS: 25068-38-6	LD50 oral	>5000 mg/kg	
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>5 mg/L	
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol CAS: 9003-36-5	LD50 oral	>5000 mg/kg	
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>20 mg/L	
oxirane, mono[(C12-14-alkyloxy)methyl] derivs. CAS: 68609-97-2	LD50 oral	>5000 mg/kg	
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>20 mg/L	

SECTION 11: TOXICOLOGICAL INFORMATION (continue)

Identification	Acute toxicity		Genus
Titanium dioxide (aerodynamic diameter ≤ 10 µm) CAS: 13463-67-7	LD50 oral	10000 mg/kg	Rat
	LD50 dermal	10000 mg/kg	Rabbit
	LC50 inhalation	>5 mg/L	
Pine oil CAS: 8002-09-3	LD50 oral	3200 mg/kg	Rat
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>20 mg/L	

Acute Toxicity Estimate (ATE mix):

ATE mix		Ingredient(s) of unknown toxicity
Oral	>5000 mg/kg (Calculation method)	Non-applicable
Dermal	>5000 mg/kg (Calculation method)	Non-applicable
Inhalation	>20 mg/L (4 h) (Calculation method)	Non-applicable

SECTION 12: ECOLOGICAL INFORMATION

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

12.1 Toxicity

Acute toxicity:

Identification	Concentration		Species	Genus
reaction product: bisphenol-A-(epichlorhydrin) (MW < 700) CAS: 25068-38-6	LC50	>1 - 10 mg/L (96 h)		Fish
	EC50	>1 - 10 mg/L (48 h)		Crustacean
	EC50	>1 - 10 mg/L (72 h)		Algae
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol CAS: 9003-36-5	LC50	>1 - 10 mg/L (96 h)		Fish
	EC50	>1 - 10 mg/L (48 h)		Crustacean
	EC50	>1 - 10 mg/L (72 h)		Algae
Pine oil CAS: 8002-09-3	LC50	>1 - 10 mg/L (96 h)		Fish
	EC50	>1 - 10 mg/L (48 h)		Crustacean
	EC50	>1 - 10 mg/L (72 h)		Algae

Chronic toxicity:

Identification	Concentration		Species	Genus
reaction product: bisphenol-A-(epichlorhydrin) (MW < 700) CAS: 25068-38-6	NOEC	Non-applicable		
	NOEC	0.3 mg/L	Daphnia magna	Crustacean

12.2 Persistence and degradability:

Substance-specific information:

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

12.3 Bioaccumulative potential

Substance-specific information:

Identification	Bioaccumulation potential	
reaction product: bisphenol-A-(epichlorhydrin) (MW < 700) CAS: 25068-38-6	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
20 01 27*	paint, inks, adhesives and resins containing hazardous substances	Dangerous

Type of waste:

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

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance The Waste 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-dangerous residue. Waste should not be disposed of to drains. See paragraph 6.2.

SECTION 13: DISPOSAL CONSIDERATIONS (continue)

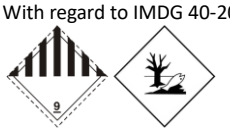
Regulations related to waste management:
In accordance with Annex II of UK REACH the provisions related to waste management are stated:
UK legislation: The Waste Regulations 2011.

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to ADR 2021 and RID 2021:

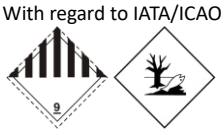
14.1	**UN number:**	UN3082
14.2	**UN proper shipping name:**	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) (MW < 700))
14.3	**Transport Hazard Class(es):**	9
	Label(s):	9
14.4	**Packing group**	III
14.5	**Environmental hazards:**	Yes
14.6	**Special precautions for user**	
	Tunnel restriction code:	-
	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 40-20:



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):**	
	Label(s):	9
14.4	**Packing group**	9
14.5	**Marine pollutant:**	III
14.6	**Special precautions for user**	Yes
	Special regulations:	335, 969, 274
	EmS Codes:	F-A, S-F
	Physico-Chemical properties:	see section 9
	Limited quantities:	5 L
	Segregation group:	Non-applicable
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 2022:



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):**	
	Label(s):	9
14.4	**Packing group**	9
14.5	**Environmental hazards:**	III
14.6	**Special precautions for user**	Yes
	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:
- Substances listed in UK candidate list of substances of very high concern (SVHCs): Non-applicable
- Substances listed in UK REACH Authorisation List (Annex 14): Non-applicable

The Control of Major Accident Hazards Regulations 2015:

Section	Description	Lower-tier requirement	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.

Occupational exposure to respirable crystalline silica must be controlled pursuant to Directive (EU) 2019/130.

SECTION 15: REGULATORY INFORMATION (continue)

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as 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 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:
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H411: Toxic to aquatic life with long lasting effects.
H319: Causes serious eye irritation.

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:
Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects.
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways.
Carc. 2: H351 - Suspected of causing cancer (Inhalation).
Eye Irrit. 2: H319 - Causes serious eye irritation.
Flam. Liq. 3: H226 - Flammable liquid and vapour.
Skin Irrit. 2: H315 - Causes skin irritation.
Skin Sens. 1: H317 - May cause an allergic skin reaction.

Classification procedure:
Skin Irrit. 2: Calculation method
Skin Sens. 1: Calculation method
Aquatic Chronic 2: Calculation method
Eye Irrit. 2: 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:
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

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR PREPARATION AND THE COMPANY

1.1 Product Identifier

Product Name: DPM Primer XFH (Hardener) Part B

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

Material uses: Relevant uses: Resin. For professional users/industrial 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

Company Name: Polycote UK LLP
Centre Point
Wolseley Road
Woburn Road Industrial Estate
Kempston
Beds
MK42 7EF

Telephone Number: 01234 846400

Emergency Contact Number: 111 (NHS England)

Email address: uksales@polycote.com

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

GB CLP Regulation:

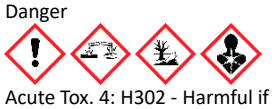
Classification of this product has been carried out in accordance with GB CLP Regulation.
Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302
Aquatic Acute 1: Hazardous to the aquatic environment, acute hazard, Category 1, H400
Aquatic Chronic 1: Hazardous to the aquatic environment, long-term hazard, Category 1, H410
Eye Dam. 1: Serious eye damage, Category 1, H318
Repr. 2: Reproductive toxicity, Category 2, H361
Skin Corr. 1B: Skin corrosion, Category 1B, H314
Skin Sens. 1A: Sensitisation, skin, Category 1A, H317
STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1 (Inhalation), H372

2.2 Label elements

GB CLP Regulation:

Signal word: Danger

Hazard pictograms:



Hazard statements: Acute Tox. 4: H302 - Harmful if swallowed.
Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects.
Repr. 2: H361 - Suspected of damaging fertility or the unborn child.
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.
Skin Sens. 1A: H317 - May cause an allergic skin reaction.
STOT RE 1: H372 - Causes damage to organs through prolonged or repeated exposure (Inhalation).

Precautionary statements: P201: Obtain special instructions before use.
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.
P308+P313: IF exposed or concerned: Get medical advice/attention.
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.

Substances that contribute to the classification: benzyl alcohol; Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine; [Fatty acids, C18-unsaturated, dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine] reaction products with bisphenol A diglycidyl ether; 2-piperazin-1-ylethylamine; Bisphenol A; 3-aminomethyl-3,5,5-trimethylcyclohexylamine; m-phenylenebis(methylamine); 3-aminopropyldimethylamine; [Fatty acids, C18-unsaturated, dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine] reaction products with glycidyl tolyl ether; 2,4,6-tris (dimethylaminomethyl)phenol

2.3 Other hazards: Product fails to 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: 100-51-6	**benzyl alcohol** Acute Tox. 4: H302+H332 - Warning	**15 - <25 %**
CAS: 68082-29-1	**Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids andtriethylenetetramine** Aquatic Chronic 2: H411; Eye Dam. 1: H318; Skin Irrit. 2: H315; Skin Sens. 1A: H317 - Danger	**15 - <25 %**
CAS: 2414889-39-5	**[Fatty acids, C18-unsaturated, dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine] reaction products with bisphenol A diglycidyl ether** Aquatic Chronic 2: H411; Eye Dam. 1: H318; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Danger	**10 - <15 %**
CAS: 140-31-8	**2-piperazin-1-ylethylamine** Acute Tox. 3: H311; Acute Tox. 4: H302; Aquatic Chronic 3: H412; Eye Dam. 1: H318; Repr. 2: H361; Skin Corr. 1B: H314; Skin Sens. 1: H317; STOT RE 1: H372 - Danger	**10 - <15 %**
CAS: 80-05-7	**Bisphenol A** Eye Dam. 1: H318; Repr. 1B: H360F; Skin Sens. 1: H317; STOT SE 3: H335 - Danger	**5 - <10 %**
CAS: 2855-13-2	**3-aminomethyl-3,5,5-trimethylcyclohexylamine** Acute Tox. 4: H302; Eye Dam. 1: H318; Skin Corr. 1B: H314; Skin Sens. 1A: H317 - Danger	**3 - <5 %**
CAS: 1477-55-0	**m-phenylenebis(methylamine)** Acute Tox. 4: H302+H332; Aquatic Chronic 3: H412; Eye Dam. 1: H318; Skin Corr. 1B: H314; Skin Sens. 1B: H317; EUH071 - Danger	**3 - <5 %**
CAS: 68082-29-1	**Fatty acids, C18-unsaturated, dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine] reaction products with glycidyl tolyl ether** Aquatic Chronic 2: H411; Eye Dam. 1: H318; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Danger	**3 - <5 %**
CAS: 90-72-2	**2,4,6-tris(dimethylaminomethyl)phenol** Eye Dam. 1: H318; Skin Corr. 1C: H314 - Danger	**3 - <5 %**
CAS: 109-55-7	**3-aminopropyldimethylamine** Acute Tox. 4: H302+H312; Flam. Liq. 3: H226; Skin Corr. 1B: H314; Skin Sens. 1B: H317; STOT SE 3: H335 - Danger	**3 - <5 %**
CAS: 84852-15-3	**4-nonylphenol, branched** Acute Tox. 4: H302; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Repr. 2: H361fd; Skin Corr. 1B: H314 - Danger	**1 - <3 %**
CAS: 69-72-7	**Salicylic acid** Acute Tox. 4: H302; Eye Dam. 1: H318; Repr. 2: H361d - Danger	**1 - <3 %**
CAS: 919-30-2	**3-aminopropyltriethoxysilane** Acute Tox. 4: H302; Skin Corr. 1B: H314; Skin Sens. 1: H317 - Danger	**1 - <3 %**

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

Other information:

Identification	M-factor	
4-nonylphenol, branched CAS: 84852-15-3	Acute	10
	Chronic	10

Identification	Specific concentration limit
3-aminomethyl-3,5,5-trimethylcyclohexylamine CAS: 2855-13-2	% (w/w) >=0.001: Skin Sens. 1A - H317

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.

SECTION 4: FIRST-AID MEASURES (continue)

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:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media:

Suitable 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.

Unsuitable extinguishing media IT IS RECOMMENDED NOT to use full jet 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,...).

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: 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. Remove 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.

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 destroy using safe methods (section 6).

B.- Technical recommendations for the prevention of fires and explosions
Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene
PREGNANT WOMEN SHOULD NOT BE EXPOSED TO THIS PRODUCT. Transfer in designated areas that comply with the necessary safety conditions (emergency showers and eyewash stations in close proximity), using personal protection equipment, especially on the hands and face (See section 8). Limit manual transfers to small amounts only. 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.

SECTION 7: HANDLING AND STORAGE (continue)

7.2 Conditions for safe storage, including any Incompatibilities:

A.- Technical measures for storage
Minimum Temp: 2 °C
Maximum Temp: 35 °C
Maximum time: 24 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 limit		
Bisphenol A CAS: 80-05-7	WEL (8h)		2 mg/m³
	WEL (15 min)		

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	40 mg/kg	Non-applicable	8 mg/kg	Non-applicable
	Inhalation	110 mg/m³	Non-applicable	22 mg/m³	Non-applicable
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine CAS: 68082-29-1 EC: 500-191-5	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	1.1 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	3.9 mg/m³	Non-applicable
2-piperazin-1-ylethylamine CAS: 140-31-8 EC: 205-411-0	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	3.33 mg/kg	Non-applicable
	Inhalation	10.6 mg/m³	80 mg/m³	10.6 mg/m³	0.015 mg/m³
Bisphenol A CAS: 80-05-7 EC: 201-245-8	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	0.031 mg/kg	Non-applicable	0.031 mg/kg	Non-applicable
	Inhalation	2 mg/m³	2 mg/m³	2 mg/m³	2 mg/m³
3-aminomethyl-3,5,5-trimethylcyclohexylamine CAS: 2855-13-2 EC: 220-666-8	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	Non-applicable	0.073 mg/m³
m-phenylenebis(methylamine) CAS: 1477-55-0 EC: 216-032-5	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	0.33 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	1.2 mg/m³	0.2 mg/m³
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	0.15 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	0.53 mg/m³	Non-applicable
3-aminopropyldimethylamine 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	Non-applicable	Non-applicable	1.2 mg/m³	Non-applicable
4-nonylphenol, branched CAS: 84852-15-3 EC: 284-325-5	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	15 mg/kg	Non-applicable	7.5 mg/kg	Non-applicable
	Inhalation	1 mg/m³	Non-applicable	0.5 mg/m³	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	2.3 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	5 mg/m³	5 mg/m³
3-aminopropyltriethoxysilane CAS: 919-30-2 EC: 213-048-4	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	2 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	14 mg/m³	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	20 mg/kg	Non-applicable	4 mg/kg	Non-applicable
	Dermal	20 mg/kg	Non-applicable	4 mg/kg	Non-applicable
	Inhalation	27 mg/m³	Non-applicable	5.4 mg/m³	Non-applicable
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine CAS: 68082-29-1 EC: 500-191-5	Oral	Non-applicable	Non-applicable	0.56 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	0.56 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	0.97 mg/m³	Non-applicable

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continue)

DNEL (General population): cont

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Bisphenol A CAS: 80-05-7 EC: 201-245-8	Oral	0.004 mg/kg	Non-applicable	0.004 mg/kg	Non-applicable
	Dermal	0.002 mg/kg	Non-applicable	0.002 mg/kg	Non-applicable
	Inhalation	1 mg/m³	1 mg/m³	1 mg/m³	1 mg/m³
3-aminomethyl-3,5,5-trimethylcyclohexylamine CAS: 2855-13-2 EC: 220-666-8	Oral	Non-applicable	Non-applicable	0.526 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	Non-applicable	Non-applicable
2,4,6-tris(dimethylaminomethyl)phenol CAS: 90-72-2 EC: 202-013-9	Oral	Non-applicable	Non-applicable	0.075 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	0.075 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	0.13 mg/m³	Non-applicable
4-nonylphenol, branched CAS: 84852-15-3 EC: 284-325-5	Oral	0.4 mg/kg	Non-applicable	0.08 mg/kg	Non-applicable
	Dermal	7.6 mg/kg	Non-applicable	3.8 mg/kg	Non-applicable
	Inhalation	0.8 mg/m³	Non-applicable	0.4 mg/m³	Non-applicable
Salicylic acid CAS: 69-72-7 EC: 200-712-3	Oral	4 mg/kg	Non-applicable	1 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	1 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	4 mg/m³	Non-applicable
3-aminopropyltriethoxysilane CAS: 919-30-2 EC: 213-048-4	Oral	Non-applicable	Non-applicable	1 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	1 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	3.5 mg/m³	Non-applicable

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
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine CAS: 68082-29-1 EC: 500-191-5	STP	3.84 mg/L	Fresh water	0.004 mg/L
	Soil	86.78 mg/kg	Marine water	0 mg/L
	Intermittent	0.043 mg/L	Sediment (Fresh water)	434.02 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	43.4 mg/kg
2-piperazin-1-ylethylamine CAS: 140-31-8 EC: 205-411-0	STP	250 mg/L	Fresh water	0.058 mg/L
	Soil	1 mg/kg	Marine water	0.006 mg/L
	Intermittent	0.58 mg/L	Sediment (Fresh water)	215 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	21.5 mg/kg
Bisphenol A CAS: 80-05-7 EC: 201-245-8	STP	320 mg/L	Fresh water	0.018 mg/L
	Soil	3.7 mg/kg	Marine water	0.018 mg/L
	Intermittent	0.011 mg/L	Sediment (Fresh water)	1.2 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0.24 mg/kg
3-aminomethyl-3,5,5-trimethylcyclohexylamine CAS: 2855-13-2 EC: 220-666-8	STP	3.18 mg/L	Fresh water	0.06 mg/L
	Soil	1.121 mg/kg	Marine water	0.006 mg/L
	Intermittent	0.23 mg/L	Sediment (Fresh water)	5.784 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0.578 mg/kg
m-phenylenebis(methylamine) CAS: 1477-55-0 EC: 216-032-5	STP	10 mg/L	Fresh water	0.094 mg/L
	Soil	2.44 mg/kg	Marine water	0.009 mg/L
	Intermittent	0.152 mg/L	Sediment (Fresh water)	12.4 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	1.24 mg/kg
2,4,6-tris(dimethylaminomethyl)phenol CAS: 90-72-2 EC: 202-013-9	STP	0.2 mg/L	Fresh water	0.046 mg/L
	Soil	0.025 mg/kg	Marine water	0.005 mg/L
	Intermittent	0.46 mg/L	Sediment (Fresh water)	0.262 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0.026 mg/kg
3-aminopropyldimethylamine CAS: 109-55-7 EC: 203-680-9	STP	10 mg/L	Fresh water	0.073 mg/L
	Soil	0.104 mg/kg	Marine water	0.007 mg/L
	Intermittent	0.34 mg/L	Sediment (Fresh water)	0.735 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0.073 mg/kg
4-nonylphenol, branched CAS: 84852-15-3 EC: 284-325-5	STP	9.5 mg/L	Fresh water	0.001 mg/L
	Soil	2.3 mg/kg	Marine water	0.001 mg/L
	Intermittent	0 mg/L	Sediment (Fresh water)	4.62 mg/kg
	Oral	0.00236 g/kg	Sediment (Marine water)	1.23 mg/kg

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continue)

PNEC: cont

Identification				
Salicylic acid	STP	162 mg/L	Fresh water	0.2 mg/L
CAS: 69-72-7	Soil	0.166 mg/kg	Marine water	0.02 mg/L
EC: 200-712-3	Intermittent	1 mg/L	Sediment (Fresh water)	1.42 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0.142 mg/kg
3-aminopropyltriethoxysilane	STP	1.3 mg/L	Fresh water	Non-applicable
CAS: 919-30-2	Soil	Non-applicable	Marine water	Non-applicable
EC: 213-048-4	Intermittent	Non-applicable	Sediment (Fresh water)	Non-applicable
	Oral	Non-applicable	Sediment (Marine water)	Non-applicable

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. 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	NON-disposable chemical protective gloves	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.

As the product is a mixture of several substances, the resistance of the glove material cannot 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 face protection	Disposable clothing for protection against chemical risks	For professional use only. Clean periodically according to the manufacturer´s instructions.
 Mandatory face 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

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:	Light yellow
Odour:	Aminic
Odour threshold:	Non-applicable *

Volatility:

Boiling point at atmospheric pressure:	207 °C
Vapour pressure at 20 °C:	48 Pa
Vapour pressure at 50 °C:	371.69 Pa (0.37 kPa)
Evaporation rate at 20 °C:	Non-applicable *

Product description:

Density at 20 °C:	1025.8 kg/m³
Relative density at 20 °C:	1.026
Dynamic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 40 °C:	>20.5 mm²/s
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:	Immiscible
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *

Flammability:

Flash Point:	>93 °C
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	300 °C
Lower flammability limit:	Non-applicable *
Upper flammability limit:	Non-applicable *

Particle characteristics

Median equivalent diameter:	Non-applicable

9.2 Other information

Information with regard to physical hazard classes:

Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *
Corrosive to metals:	Non-applicable *
Heat of combustion:	Non-applicable *
Aerosols-total percentage (by mass) of flammable components:	Non-applicable *

Other safety characteristics:

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 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	Precaution	Precaution	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:

Contains substances which require external energy for spontaneous decomposition. Form explosive peroxides when distilled, evaporated or otherwise concentrated.

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. However, it contains 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):

- 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: Non-applicable
- 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: Suspected of damaging fertility or the unborn child.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous 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. However, it contains substances classified as hazardous for inhalation. For more information see section 3.

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

- Specific target organ toxicity (STOT)-repeated exposure: Serious health effects in the case of prolonged inhalation, including death, serious functional disorders or morphological changes of toxicological importance.
- 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:

Non-applicable.

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine CAS: 68082-29-1	LD50 oral	>5000 mg/kg	
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>20 mg/L	
benzyl alcohol CAS: 100-51-6	LD50 oral	500 mg/kg	Rat
	LD50 dermal	2500 mg/kg	
	LC50 inhalation	11 mg/L (ATEi)	
[Fatty acids, C18-unsaturated, dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine] reaction products with bisphenol A diglycidyl ether CAS: 2414889-39-5	LD50 oral	>5000 mg/kg	
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	Non-applicable	
3-aminomethyl-3,5,5-trimethylcyclohexylamine CAS: 2855-13-2	LD50 oral	1030 mg/kg	Rat
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>20 mg/L	
m-phenylenebis(methylamine) CAS: 1477-55-0	LD50 oral	1090 mg/kg	Rat
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	11 mg/L (ATEi)	
Bisphenol A CAS: 80-05-7	LD50 oral	5100 mg/kg	Rat
	LD50 dermal	3000 mg/kg	Rabbit
	LC50 inhalation	>5 mg/L	
[Fatty acids, C18-unsaturated, dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine] reaction products with glycidyl tolyl ether CAS: 68082-29-1	LD50 oral	>5000 mg/kg	
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	Non-applicable	
2,4,6-tris(dimethylaminomethyl)phenol CAS: 90-72-2	LD50 oral	2169 mg/kg	Rat
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>20 mg/L	
3-aminopropyldimethylamine CAS: 109-55-7	LD50 oral	1870 mg/kg	Rat
	LD50 dermal	1100 mg/kg (ATEi)	
	LC50 inhalation	>20 mg/L	
Salicylic acid CAS: 69-72-7	LD50 oral	891 mg/kg	Rat
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>5 mg/L	

SECTION 11: TOXICOLOGICAL INFORMATION (continue)

Identification	Acute toxicity		Genus
3-aminopropyltriethoxysilane CAS: 919-30-2	LD50 oral	1491 mg/kg	Rat
	LD50 dermal	4000 mg/kg	Rabbit
	LC50 inhalation	>20 mg/L	
2-piperazin-1-ylethylamine CAS: 140-31-8	LD50 oral	500 mg/kg	
	LD50 dermal	866 mg/kg	Rabbit
	LC50 inhalation	>20 mg/L	
4-nonylphenol, branched CAS: 84852-15-3	LD50 oral	1412 mg/kg	Rat
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>20 mg/L	

Acute Toxicity Estimate (ATE mix):

ATE mix		Ingredient(s) of unknown toxicity
Oral	1344.4 mg/kg (Calculation method)	0 %
Dermal	6284.97 mg/kg (Calculation method)	0 %
Inhalation	47.21 mg/L (4 h) (Calculation method)	0 %

SECTION 12: ECOLOGICAL INFORMATION

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

12.1 Toxicity

Acute toxicity:

Identification	Concentration		Species	Genus
benzyl alcohol CAS: 100-51-6	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
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine CAS: 68082-29-1	LC50	7 mg/L (96 h)	Danio rerio	Fish
	EC50	7 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	4 mg/L (72 h)	Pseudokirchneriella subcapitata	Algae
[Fatty acids, C18-unsaturated, dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine] reaction products with bisphenol A diglycidyl ether CAS: 2414889-39-5	LC50	>1 - 10 mg/L (96 h)		Fish
	EC50	>1 - 10 mg/L (48 h)		Crustacean
	EC50	>1 - 10 mg/L (72 h)		Algae
2-piperazin-1-ylethylamine CAS: 140-31-8	LC50	>10 - 100 mg/L (96 h)		Fish
	EC50	>10 - 100 mg/L (48 h)		Crustacean
	EC50	>10 - 100 mg/L (72 h)		Algae
Bisphenol A CAS: 80-05-7	LC50	4.6 mg/L (96 h)	Pimephales promelas	Fish
	EC50	3.8 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	Non-applicable		
3-aminomethyl-3,5,5-trimethylcyclohexylamine CAS: 2855-13-2	LC50	110 mg/L (96 h)	Leuciscus idus	Fish
	EC50	388 mg/L (48 h)	N/A	Crustacean
	EC50	Non-applicable		
m-phenylenebis(methylamine) CAS: 1477-55-0	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
[Fatty acids, C18-unsaturated, dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine] reaction products with glycidyl tolyl ether CAS: 68082-29-1	LC50	>1 - 10 mg/L (96 h)		Fish
	EC50	>1 - 10 mg/L (48 h)		Crustacean
	EC50	>1 - 10 mg/L (72 h)		Algae
4-nonylphenol, branched CAS: 84852-15-3	LC50	0.05 mg/L (96 h)	Acipenser oxyrhynchus	Fish
	EC50	0.14 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	1.3 mg/L (72 h)	Scenedesmus subspicatus	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

Chronic toxicity:

Identification	Concentration		Species	Genus
benzyl alcohol CAS: 100-51-6	NOEC	48.897 mg/L	N/A	Fish
	NOEC	51 mg/L	Daphnia magna	Crustacean
Bisphenol A CAS: 80-05-7	NOEC	0.16 mg/L	Pimephales promelas	Fish
	NOEC	3.16 mg/L	Daphnia magna	Crustacean
3-aminomethyl-3,5,5-trimethylcyclohexylamine CAS: 2855-13-2	NOEC	Non-applicable		
	NOEC	3 mg/L	Daphnia magna	Crustacean

SECTION 12: ECOLOGICAL INFORMATION (continue)

Chronic toxicity:

Identification	Concentration		Species	Genus
m-phenylenebis(methylamine)	NOEC	Non-applicable		
CAS: 1477-55-0	NOEC	4.7 mg/L	Daphnia magna	Crustacean
3-aminopropyldimethylamine	NOEC	Non-applicable		
CAS: 109-55-7	NOEC	3.64 mg/L	Daphnia magna	Crustacean
4-nonylphenol, branched	NOEC	0.006 mg/L	Oncorhynchus mykiss	Fish
CAS: 84852-15-3	NOEC	0.024 mg/L	Daphnia magna	Crustacean

12.2 Persistence and degradability:

Substance-specific information:

Identification	Degradability		Biodegradability	
benzyl alcohol	BOD5	Non-applicable	Concentration	100 mg/L
CAS: 100-51-6	COD	Non-applicable	Period	14 days
	BOD5/COD	Non-applicable	% Biodegradable	94 %
2-piperazin-1-ylethylamine	BOD5	Non-applicable	Concentration	30 mg/L
CAS: 140-31-8	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	0 %
Bisphenol A	BOD5	Non-applicable	Concentration	100 mg/L
CAS: 80-05-7	COD	Non-applicable	Period	14 days
	BOD5/COD	Non-applicable	% Biodegradable	0 %
3-aminomethyl-3,5,5-trimethylcyclohexylamine	BOD5	Non-applicable	Concentration	7 mg/L
CAS: 2855-13-2	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	8 %
m-phenylenebis(methylamine)	BOD5	Non-applicable	Concentration	14 mg/L
CAS: 1477-55-0	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	49 %
3-aminopropyltriethoxysilane	BOD5	Non-applicable	Concentration	Non-applicable
CAS: 919-30-2	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	67 %

12.3 Bioaccumulative potential

Substance-specific information:

Identification	Bioaccumulation potential	
benzyl alcohol	BCF	0.3
CAS: 100-51-6	Pow Log	1.1
	Potential	Low
Fatty acids, C18-unsatd., dimers, oligomeric reaction	BCF	77
products with tall-oil fatty acids and triethylenetetramine	Pow Log	
CAS: 68082-29-1	Potential	Moderate
Bisphenol A	BCF	67
CAS: 80-05-7	Pow Log	3.32
	Potential	Moderate
m-phenylenebis(methylamine)	BCF	3
CAS: 1477-55-0	Pow Log	0.18
	Potential	Low
2,4,6-tris(dimethylaminomethyl)phenol	BCF	
CAS: 90-72-2	Pow Log	0.22
	Potential	
4-nonylphenol, branched	BCF	231
CAS: 84852-15-3	Pow Log	5.4
	Potential	High

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
	Surface tension	3.679E-2 N/m (25 °C)	Moist soil	Non-applicable
2-piperazin-1-ylethylamine	Koc	37000	Henry	Non-applicable
CAS: 140-31-8	Conclusion	Immobile	Dry soil	Non-applicable
	Surface tension	4.001E-2 N/m (25 °C)	Moist soil	Non-applicable
Bisphenol A	Koc	796	Henry	1.013E-6 Pa·m³/mol
CAS: 80-05-7	Conclusion	Low	Dry soil	No
	Surface tension	3.76E-3 N/m (364.43 °C)	Moist soil	No

SECTION 12: ECOLOGICAL INFORMATION (continue)

Identification	Absorption/desorption		Volatility	
3-aminomethyl-3,5,5-trimethylcyclohexylamine CAS: 2855-13-2	Koc	928	Henry	4.46E-4 Pa·m³/mol
	Conclusion	Low	Dry soil	No
	Surface tension	Non-applicable	Moist soil	No
m-phenylenebis(methylamine) CAS: 1477-55-0	Koc	1300	Henry	Non-applicable
	Conclusion	Low	Dry soil	Non-applicable
	Surface tension	Non-applicable	Moist soil	Non-applicable
4-nonylphenol, branched CAS: 84852-15-3	Koc	22000	Henry	11.02 Pa·m³/mol
	Conclusion	Immobile	Dry soil	Yes
	Surface tension	Non-applicable	Moist soil	Yes
Salicylic acid CAS: 69-72-7	Koc	Non-applicable	Henry	Non-applicable
	Conclusion	Non-applicable	Dry soil	Non-applicable
	Surface tension	2.444E-2 N/m (207.25 °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

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Code	Description	Waste class
20 01 27*	paint, inks, adhesives and resins containing hazardous substances	Dangerous

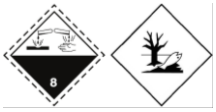
Type of waste:
HP14 Ecotoxic, HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity, HP6 Acute Toxicity, HP10 Toxic for reproduction, HP13 Sensitising, HP8 Corrosive

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations in accordance The Waste 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-dangerous 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 Regulations 2011.

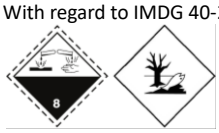
SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to ADR 2021 and RID 2021:



14.1	**UN number:**	UN2735
14.2	**UN proper shipping name:**	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (2-piperazin-1-ylethylamine; Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine)
14.3	**Transport Hazard Class(es):**	8
	Label(s):	8
14.4	**Packing group**	II
14.5	**Environmental hazards:**	Yes
14.6	**Special precautions for user**	
	Tunnel restriction code:	E
	Physico-Chemical properties:	see section 9
	Limited quantities:	1 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 40-20:

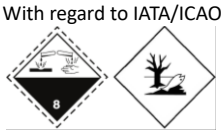


14.1	**UN number:**	UN2735
14.2	**UN proper shipping name:**	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (2-piperazin-1-ylethylamine; Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine)
14.3	**Transport Hazard Class(es):**	
	Label(s):	8
14.4	**Packing group**	8
14.5	**Marine pollutant:**	II
14.6	**Special precautions for user**	Yes
	Special regulations:	274
	EmS Codes:	F-A, S-B
	Physico-Chemical properties:	see section 9
	Limited quantities:	1 L
	Segregation group:	SGG18

SECTION 14: TRANSPORT INFORMATION (continue)

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 2022:



14.1	**UN number:**	UN2735
14.2	**UN proper shipping name:**	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (2-piperazin-1-ylethylamine; Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine)
14.3	**Transport Hazard Class(es):**	
	Label(s):	8
14.4	**Packing group**	8
14.5	**Environmental hazards:**	II
14.6	**Special precautions for user**	Yes
	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:
- Substances listed in UK candidate list of substances of very high concern (SVHCs): Bisphenol A (80-05-7) ; 4-nonylphenol, branched (84852-15-3)
- Substances listed in UK REACH Authorisation List (Annex 14): Non-applicable

The Control of Major Accident Hazards Regulations 2015:

Section	Description	Lower-tier requirement	Upper-tier requirements
E1	ENVIRONMENTAL HAZARDS	100	200

Restrictions to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII UK REACH, etc ….):
Contains more than 0.1 % of 4-nonylphenol, branched by weight. Shall not be placed on the market, or used, as substances or in mixtures in concentrations equal to or greater than 0,1 % by weight for the following purposes:
(1) industrial and institutional cleaning except:
— controlled closed dry cleaning systems where the washing liquid is recycled or incinerated,
— cleaning systems with special treatment where the washing liquid is recycled or incinerated.
(2) domestic cleaning;
(3) textiles and leather processing except:
— processing with no release into waste water,
— systems with special treatment where the process water is pre-treated to remove the organic fraction completely prior to biological waste water treatment (degreasing of sheepskin);
(4) emulsifier in agricultural teat dips;
(5) metal working except:
uses in controlled closed systems where the washing liquid is recycled or incinerated;
(6) manufacturing of pulp and paper;
(7) cosmetic products;
(8) other personal care products except:
spermicides;
(9) co-formulants in pesticides and biocides. However national authorisations for pesticides or biocidal products containing nonylphenol ethoxylates as co-formulant, granted before 17 July 2003, shall not be affected by this restriction until their date of expiry.

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.

Contains Bisphenol A. Shall not be placed on the market in thermal paper in a concentration equal to or greater than 0,02 % by weight after 2 January 2020.

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 thisproduct.

Other legislation:
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:
H314: Causes severe skin burns and eye damage.
H318: Causes serious eye damage.

SECTION 16: OTHER INFORMATION (continue)

H410: Very toxic to aquatic life with long lasting effects.
H317: May cause an allergic skin reaction.
H361: Suspected of damaging fertility or the unborn child.
H372: Causes damage to organs through prolonged or repeated exposure (Inhalation).
H400: Very toxic to aquatic life.
H302: Harmful if swallowed.

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:

Acute Tox. 3: H311 - Toxic in contact with skin.
Acute Tox. 4: H302 - Harmful if swallowed.
Acute Tox. 4: H302+H312 - Harmful if swallowed or in contact with skin.
Acute Tox. 4: H302+H332 - Harmful if swallowed or if inhaled.
Aquatic Acute 1: H400 - Very toxic to aquatic life.
Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects.
Aquatic Chronic 2: H411 - 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.
Flam. Liq. 3: H226 - Flammable liquid and vapour.
Repr. 1B: H360F - May damage fertility.
Repr. 2: H361 - Suspected of damaging fertility or the unborn child.
Repr. 2: H361d - Suspected of damaging the unborn child.
Repr. 2: H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child.
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 SE 3: H335 - May cause respiratory irritation.

Classification procedure:

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

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