

# SAFETY DATA SHEET



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

### 1.1. Product identifier

**Trade name or designation of the mixture** S&P Resicem HP Comp B

**Registration number** -

**UFI:** EU: S110-D0Y8-H00X-096W

**Synonyms** None.

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

**Identified uses** Hardener for epoxy resin.

**Uses advised against** For industrial use only.

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

**Manufacturer** S&P Clever Reinforcement Company AG

**Address** Seewernstrasse 127, CH 6423 Seewen

**Country** Switzerland

**Telephone number** +41 41 825 00 70

**E-mail** info@sp-reinforcement.ch

### 1.4. Emergency telephone number

**Emergency phone (Access code):** +1 760 476 3961 (334090)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

#### Classification according to Regulation (EC) No 1272/2008 as amended

##### Health hazards

Acute toxicity, oral	Category 4	H302 - Harmful if swallowed.
Skin corrosion/irritation	Category 1B	H314 - Causes severe skin burns and eye damage.
Serious eye damage/eye irritation	Category 1	H318 - Causes serious eye damage.
Skin sensitisation	Category 1	H317 - May cause an allergic skin reaction.
Specific target organ toxicity - repeated exposure	Category 2 (kidney, liver, muscle, stomach)	H373 - May cause damage to organs (kidney, liver, muscle, stomach) through prolonged or repeated exposure.

##### Environmental hazards

Hazardous to the aquatic environment, long-term aquatic hazard	Category 3	H412 - Harmful to aquatic life with long lasting effects.
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### 2.2. Label elements

#### Label according to Regulation (EC) No. 1272/2008 as amended

**Contains:** Poly(oxypropylene)diamine, 4,4'-Methylenebis(cyclohexylamine), Benzyl alcohol, 2,4,6-tris(dimethylaminomethyl)phenol, Copolymer of benzenamine and formaldehyde, hydrogenated

## Hazard pictograms



## Signal word

Danger

## Hazard statements

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H373	May cause damage to organs (kidney, liver, muscle, stomach) through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

## Precautionary statements

### Prevention

P260	Do not breathe vapour.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

### Response

P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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 CENTRE/doctor.

### Storage

P405	Store locked up.
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### Disposal

P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
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## Supplemental information on the label

None.

## 2.3. Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

The mixture does not contain any substances included in the list established in accordance with REACH Article 59(1) for having endocrine disrupting properties at a concentration equal to or greater than 0.1% by weight.

The mixture does not contain any substances having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0.1% by weight.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Poly(oxypropylene)diamine	>=50 - <100	9046-10-0 618-561-0	01-2119557899-12-XXXX	-	<b>Classification:</b> Skin Corr. 1C;H314, Eye Dam. 1;H318, Aquatic Chronic 3;H412
4,4'-Methylenebis(cyclohexylamine)	>=10 - <25	1761-71-3 217-168-8	01-2119541673-38-XXXX	-	<b>Classification:</b> Acute Tox. 4;H302;(ATE: 380 mg/kg bw), Skin Corr. 1B;H314, Eye Dam. 1;H318, Skin Sens. 1B;H317, STOT RE 2;H373
Benzyl alcohol	>=10 - <25	100-51-6 202-859-9	01-2119492630-38-XXXX	603-057-00-5	<b>Classification:</b> Acute Tox. 4;H302;(ATE: 1200 mg/kg bw), Acute Tox. 4;H332;(ATE: 11 mg/l), Eye Irrit. 2;H319, Skin Sens. 1B;H317
2,4,6-tris(dimethylaminomethyl)pheno l	>=2,5 - <10	90-72-2 202-013-9	01-2119560597-27-XXXX	603-069-00-0	<b>Classification:</b> Skin Corr. 1C;H314, Eye Dam. 1;H318
Copolymer of benzenamine and formaldehyde, hydrogenated	>=2,5 - <10	135108-88-2 603-894-6	01-2119983522-33-XXXX	-	<b>Classification:</b> Acute Tox. 3;H301;(ATE: 100 mg/kg bw), Skin Corr. 1C;H314, Eye Dam. 1;H318, Skin Sens. 1;H317, STOT RE 2;H373, Aquatic Chronic 3;H412

## List of abbreviations and symbols that may be used above

ATE: Acute toxicity estimate.

**Composition comments** All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. The full text for all H-statements is displayed in section 16.

## SECTION 4: First aid measures

**General information** If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

### 4.1. Description of first aid measures

**Inhalation** Move to fresh air. Call a physician if symptoms develop or persist.

**Skin contact** Remove contaminated clothing immediately and wash skin with soap and water. Call a physician or poison control centre immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

**Eye contact** Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control centre immediately.

**Ingestion** Call a physician or poison control centre immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

**4.2. Most important symptoms and effects, both acute and delayed** Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Sensitisation. Prolonged exposure may cause chronic effects.

**4.3. Indication of any immediate medical attention and special treatment needed** Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

## SECTION 5: Firefighting measures

**General fire hazards** No unusual fire or explosion hazards noted. Will burn if involved in a fire.

### 5.1. Extinguishing media

**Suitable extinguishing media** Foam. Powder. Carbon dioxide (CO<sub>2</sub>).

**Unsuitable extinguishing media** Do not use water jet as an extinguisher, as this will spread the fire.

**5.2. Special hazards arising from the substance or mixture** During fire, gases hazardous to health may be formed.

### 5.3. Advice for firefighters

**Special protective equipment for firefighters** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Special fire fighting procedures** Move containers from fire area if you can do so without risk.

**Specific methods** Use standard firefighting procedures and consider the hazards of other involved materials.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep upwind. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapour. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate the area. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.

**For emergency responders** Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

**6.2. Environmental precautions** Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

**6.3. Methods and material for containment and cleaning up** The product is immiscible with water and will sediment in water systems. Prevent product from entering drains.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

#### 6.4. Reference to other sections

For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Do not breathe mist or vapour. Do not get this material in your eyes, on your skin, or on your clothing. Do not taste or swallow. Persons susceptible to allergic reactions should not handle this product. When using do not eat or drink. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

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

Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Store in a dry place.

#### 7.3. Specific end use(s)

Observe industrial sector guidance on best practices.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Occupational exposure limits

##### **Bulgaria. OELs. Ordinance No 13 on protection of workers against risks of exposure to chemical agents at work, as amended**

Components	Type	Value
Benzyl alcohol (CAS 100-51-6)	TWA	5 mg/m <sup>3</sup>

##### **Czech Republic. Occupational exposure limit values of chemicals at work (Decree on protection of health at work, 361/2007, Annex 2, Part A & Annex 3, Part A, as amended)**

Components	Type	Value
Benzyl alcohol (CAS 100-51-6)	Ceiling	80 mg/m <sup>3</sup>
		18 ppm
	TWA	40 mg/m <sup>3</sup> 9 ppm

##### **Finland. HTP-arvot, App 3., Binding Limit Values, Social Affairs and Ministry of Health**

Components	Type	Value
Benzyl alcohol (CAS 100-51-6)	TWA	45 mg/m <sup>3</sup>
		10 ppm

##### **Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG), as updated**

Components	Type	Value	Form
Benzyl alcohol (CAS 100-51-6)	TWA	22 mg/m <sup>3</sup>	Vapour and aerosol.
		5 ppm	Vapour and aerosol.

##### **Germany. TRGS 900, Limit Values in the Ambient Air at the Workplace**

Components	Type	Value	Form
Benzyl alcohol (CAS 100-51-6)	AGW	22 mg/m <sup>3</sup>	Vapour and aerosol.
		5 ppm	Vapour and aerosol.

##### **Latvia. OELs. Occupational Exposure Limits of Chemical Substances at Workplace (Reg. No. 325/ 2007, L.V. 80, Annex 1), as amended**

Components	Type	Value
Benzyl alcohol (CAS 100-51-6)	TWA	5 mg/m <sup>3</sup>

##### **Lithuania. OELs. Limit Values for Chemical Substances, General Requirements (Hygiene Norm HN 23:2007)**

Components	Type	Value
Benzyl alcohol (CAS 100-51-6)	TWA	5 mg/m <sup>3</sup>

**Poland. Maximum permissible concentrations and intensities of harmful factors in the work environment (Dz.U.Poz. 1286/2018, Annex 1)**

Components	Type	Value
Benzyl alcohol (CAS 100-51-6)	TWA	240 mg/m <sup>3</sup>

**Slovenia. OELs. Occupational Exposure Limits of Chemicals at Workplace (Reg. on Protection of Workers from Risks due to Exp. to Chemicals at Work, Ann. I 100/2001), as amended**

Components	Type	Value
Benzyl alcohol (CAS 100-51-6)	KTV	44 mg/m <sup>3</sup> 10 ppm

**Slovenia. OELs. Occupational Exposure Limits of Chemicals at Workplace (Reg. on Protection of Workers from Risks due to Exp. to Chemicals at Work, Annex I), as amended**

Components	Type	Value
Benzyl alcohol (CAS 100-51-6)	TWA	22 mg/m <sup>3</sup> 5 ppm

**Switzerland. SUVA Grenzwerte am Arbeitsplatz: Aktuelle MAK-Werte**

Components	Type	Value	Form
Benzyl alcohol (CAS 100-51-6)	TWA	22 mg/m <sup>3</sup> 5 ppm	Vapour and aerosol. Vapour and aerosol.

**Biological limit values** No biological exposure limits noted for the ingredient(s).

**Recommended monitoring procedures** Follow standard monitoring procedures.

**Derived no effect levels (DNELs)**

**General population**

Components	Value	Assessment factor	Notes
2,4,6-tris(dimethylaminomethyl)phenol (CAS 90-72-2)			
Long-term, Systemic, Dermal	0,075 mg/kg	200	Repeated dose toxicity
Long-term, Systemic, Inhalation	0,13 mg/m <sup>3</sup>	50	Repeated dose toxicity
Long-term, Systemic, Oral	0,075 mg/kg	200	Repeated dose toxicity
Short-term, Systemic, Dermal	0,075 mg/kg		Repeated dose toxicity
Short-term, Systemic, Inhalation	0,13 mg/m <sup>3</sup>		Repeated dose toxicity
Benzyl alcohol (CAS 100-51-6)			
Long-term, Systemic, Dermal	4 mg/kg	100	Repeated dose toxicity
Long-term, Systemic, Inhalation	12,9 mg/m <sup>3</sup>	50	Repeated dose toxicity
Long-term, Systemic, Oral	4 mg/kg	100	Repeated dose toxicity
Short-term, Systemic, Dermal	20 mg/kg		Acute toxicity
Short-term, Systemic, Inhalation	32,3 mg/m <sup>3</sup>	40	Acute toxicity
Short-term, Systemic, Oral	20 mg/kg		Acute toxicity

**Workers**

Components	Value	Assessment factor	Notes
2,4,6-tris(dimethylaminomethyl)phenol (CAS 90-72-2)			
Long-term, Systemic, Dermal	0,15 mg/kg	100	Repeated dose toxicity
Long-term, Systemic, Inhalation	0,53 mg/m <sup>3</sup>	25	Repeated dose toxicity
Short-term, Systemic, Dermal	0,6 mg/kg		Repeated dose toxicity
Short-term, Systemic, Inhalation	2,1 mg/m <sup>3</sup>		Repeated dose toxicity
4,4'-Methylenebis(cyclohexylamine) (CAS 1761-71-3)			
Long-term, Systemic, Dermal	0,053 mg/kg bw	40	Repeated dose toxicity
Long-term, Systemic, Inhalation	0,13 mg/m <sup>3</sup>	10	Repeated dose toxicity
Benzyl alcohol (CAS 100-51-6)			
Long-term, Systemic, Dermal	8 mg/kg	50	Repeated dose toxicity
Long-term, Systemic, Inhalation	25,8 mg/m <sup>3</sup>	25	Repeated dose toxicity
Short-term, Systemic, Dermal	40 mg/kg		Repeated dose toxicity
Short-term, Systemic, Inhalation	129 mg/m <sup>3</sup>	10	Repeated dose toxicity
Copolymer of benzenamine and formaldehyde, hydrogenated (CAS 135108-88-2)			
Long-term, Systemic, Dermal	2 mg/kg bw/day	75	Repeated dose toxicity
Long-term, Systemic, Inhalation	0,2 mg/m <sup>3</sup>	75	Repeated dose toxicity
Short-term, Systemic, Dermal	6 mg/kg	75	Repeated dose toxicity

Short-term, Systemic, Inhalation	2 mg/m3	75	Repeated dose toxicity
Poly(oxypropylene)diamine (CAS 9046-10-0)			
Long-term, Systemic, Dermal	2,5 mg/kg bw/day	100	Repeated dose toxicity
Long-term, Systemic, Inhalation	5,29 mg/m3	25	Repeated dose toxicity

#### Predicted no effect concentrations (PNECs)

Components	Value	Assessment factor	Notes
2,4,6-tris(dimethylaminomethyl)phenol (CAS 90-72-2)			
Freshwater	0,046 mg/l	1000	
Marine water	0,005 mg/l	10000	
Sediment (freshwater)	0,262 mg/kg		
Sediment (marine water)	0,026 mg/kg		
Soil	0,025 mg/kg		
STP	0,2 mg/l	10	
4,4'-Methylenebis(cyclohexylamine) (CAS 1761-71-3)			
Freshwater	0,08 mg/l	50	
Intermittent releases	0,08 mg/l		
Marine water	0,008 mg/l	500	
Sediment (freshwater)	137 mg/kg		
Sediment (marine water)	13,7 mg/kg		
Soil	27,2 mg/kg		
STP	3,2 mg/l	50	
Benzyl alcohol (CAS 100-51-6)			
Freshwater	1 mg/l	50	
Intermittent releases	2,3 mg/l	100	
Marine water	0,1 mg/l	500	
Sediment (freshwater)	5,27 mg/kg		
Sediment (marine water)	0,527 mg/kg		
Soil	0,456 mg/kg		
STP	39 mg/l	10	
Copolymer of benzenamine and formaldehyde, hydrogenated (CAS 135108-88-2)			
Freshwater	0,015 mg/l	1000	
Marine water	0,002 mg/l	10000	
Sediment (freshwater)	15 mg/kg		
Sediment (marine water)	1,5 mg/kg		
Soil	1,8 mg/kg		
STP	1,9 mg/l	100	
Poly(oxypropylene)diamine (CAS 9046-10-0)			
Freshwater	0,015 mg/l	1000	
Intermittent releases	0,15 mg/l		
Marine water	0,014 mg/l	10000	
Secondary poisoning	6,93 mg/kg	300	Oral
Sediment (freshwater)	0,132 mg/kg		
Sediment (marine water)	0,125 mg/kg		
Soil	0,018 mg/kg		
STP	7,5 mg/l	100	

#### Exposure guidelines

##### Germany DFG MAK (advisory): Skin designation

Benzyl alcohol (CAS 100-51-6) Can be absorbed through the skin.

##### Germany TRGS 900 Limit Values: Skin designation

Benzyl alcohol (CAS 100-51-6) Can be absorbed through the skin.

##### Lithuania OELs: Skin designation

Benzyl alcohol (CAS 100-51-6) Can be absorbed through the skin.

##### Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)

Benzyl alcohol (CAS 100-51-6) Can be absorbed through the skin.

##### Switzerland SUVA Limit Values at the Workplace: Skin designation

Benzyl alcohol (CAS 100-51-6) Can be absorbed through the skin.

#### 8.2. Exposure controls

##### Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

## Individual protection measures, such as personal protective equipment

<b>General information</b>	Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.
<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles) and a face shield. Eye protection should meet standard EN 166.
<b>Skin protection</b>	
- <b>Hand protection</b>	Wear appropriate chemical resistant gloves. Glove material: nitrile. Use gloves with breakthrough time of > 120 minutes. Minimum glove thickness 0.38 mm. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier. Wear suitable gloves tested to EN374.
- <b>Other</b>	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended. (EN 14605 for splashes, EN ISO 13982 for dust)
<b>Respiratory protection</b>	Chemical respirator with organic vapour cartridge and full facepiece. Use respiratory equipment with combination filter, type A2/P2. Follow guidance on selection, use, care and maintenance in accordance with EN 529.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>Hygiene measures</b>	Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.
<b>Environmental exposure controls</b>	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or engineering modifications to the process equipment may be necessary to reduce emissions to acceptable levels.

## SECTION 9: Physical and chemical properties

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

<b>Physical state</b>	Liquid.
<b>Form</b>	Viscous.
<b>Colour</b>	Colourless.
<b>Odour</b>	Not determined.
<b>Odour threshold</b>	Not determined.
<b>Melting point/freezing point</b>	Not determined.
<b>Boiling point or initial boiling point and boiling range</b>	Not determined.
<b>Flammability</b>	Not determined.
<b>Upper/lower flammability or explosive limits</b>	
<b>Explosive limit - lower (%)</b>	Not determined.
<b>Explosive limit – upper (%)</b>	Not determined.
<b>Flash point</b>	> 93,3 °C (> 199,94 °F)
<b>Auto-ignition temperature</b>	Not determined.
<b>Decomposition temperature</b>	Not determined.
<b>pH</b>	8
<b>Kinematic viscosity</b>	Not determined.
<b>Solubility</b>	
<b>Solubility (water)</b>	Slightly soluble in water.
<b>Partition coefficient (n-octanol/water) (log value)</b>	Not determined.
<b>Vapour pressure</b>	Not determined.
<b>Density and/or relative density</b>	
<b>Density</b>	Not determined.
<b>Relative density</b>	1,02
<b>Vapour density</b>	Not determined.
<b>Particle characteristics</b>	Not applicable, material is a liquid.

### 9.2. Other information

<b>9.2.1. Information with regard to physical hazard classes</b>	No relevant additional information available.
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### 9.2.2. Other safety characteristics

Evaporation rate	Not determined.
Viscosity	100 mPa·s (20 °C)
VOC	< 3 %

## SECTION 10: Stability and reactivity

10.1. Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	Contact with incompatible materials.
10.5. Incompatible materials	Acids. Metals. Oxidizing agents.
10.6. Hazardous decomposition products	Thermal decomposition or combustion may produce: Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ). Nitrogen oxides (NO <sub>x</sub> ). Ammonia.

## SECTION 11: Toxicological information

**General information** Occupational exposure to the substance or mixture may cause adverse effects.

### Information on likely routes of exposure

<b>Inhalation</b>	Inhalation of vapours or mists of the product may be irritating to the respiratory system.
<b>Skin contact</b>	Causes severe skin burns. May cause an allergic skin reaction.
<b>Eye contact</b>	Causes serious eye damage.
<b>Ingestion</b>	Causes digestive tract burns. Harmful if swallowed.

**Symptoms** Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Sensitisation. Prolonged exposure may cause chronic effects.

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

**Acute toxicity** Harmful if swallowed.

Components	Species	Test Results
4,4'-Methylenebis(cyclohexylamine) (CAS 1761-71-3)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	2110 mg/kg
<b>Oral</b>		
LD50	Rat	380 mg/kg
Benzyl alcohol (CAS 100-51-6)		
<b>Acute</b>		
<b>Inhalation</b>		
<i>Aerosol</i>		
LC50	Rat	> 4,178 mg/l, 4 Hours
<b>Oral</b>		
ATE		1200 mg/kg
LD50	Rat	1620 mg/kg
Copolymer of benzenamine and formaldehyde, hydrogenated (CAS 135108-88-2)		
<b>Acute</b>		
<b>Oral</b>		
LD50	Rat	50 - 300 mg/kg
Poly(oxypropylene)diamine (CAS 9046-10-0)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	2980 mg/kg, 24 Hours
<b>Inhalation</b>		
LC50	Rat	> 0,74 mg/l, 8 Hours
<b>Oral</b>		
LD50	Rat	2885 mg/kg
<b>Skin corrosion/irritation</b>	Causes severe skin burns.	

<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.
<b>Respiratory sensitisation</b>	Based on available data, the classification criteria are not met.
<b>Skin sensitisation</b>	May cause an allergic skin reaction.
<b>Germ cell mutagenicity</b>	Based on available data, the classification criteria are not met.
<b>Carcinogenicity</b>	Based on available data, the classification criteria are not met.
<b>Reproductive toxicity</b>	Based on available data, the classification criteria are not met.
<b>Specific target organ toxicity - single exposure</b>	Based on available data, the classification criteria are not met.
<b>Specific target organ toxicity - repeated exposure</b>	May cause damage to organs (kidney, liver, muscle, stomach) through prolonged or repeated exposure.
<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met.
<b>Mixture versus substance information</b>	No information available.

## 11.2. Information on other hazards

<b>Endocrine disrupting properties</b>	This mixture does not contain any substances having endocrine disrupting properties with respect to human health as assessed in accordance with the criteria set out in Regulations (EC) No 1907/2006, (EU) No 2017/2100 and (EU) 2018/605, at a concentration equal to or greater than 0.1% by weight.
<b>Other information</b>	May cause damage to the kidneys.

## SECTION 12: Ecological information

**12.1. Toxicity** Harmful to aquatic life with long lasting effects.

Components	Species		Test Results
Copolymer of benzenamine and formaldehyde, hydrogenated (CAS 135108-88-2)			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Desmodesmus subspicatus	43,94 mg/l, 72 hours
Crustacea	EC50	Daphnia magna	15,4 mg/l, 48 hours
Fish	LC50	Poecilia reticulata	63 mg/l, 96 hours
Poly(oxypropylene)diamine (CAS 9046-10-0)			
<b>Aquatic</b>			
Algae	NOEC	Algae	0,32 mg/l, 72 hours
Crustacea	EC50	Daphnia	80 mg/l, 48 hours
Fish	EC50	Oncorhynchus mykiss	> 15 mg/l, 96 hours

**12.2. Persistence and degradability** No data is available on the degradability of this product.

**12.3. Bioaccumulative potential** No data available for this product.

### Partition coefficient n-octanol/water (log Kow)

Benzyl alcohol (CAS 100-51-6) 1,1

**Bioconcentration factor (BCF)** Not available.

**12.4. Mobility in soil** No data available.

**12.5. Results of PBT and vPvB assessment** This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**12.6. Endocrine disrupting properties** This mixture does not contain any substances having endocrine disrupting properties with respect to the environment as assessed in accordance with the criteria set out in Regulations (EC) No 1907/2006, (EU) No 2017/2100 and (EU) 2018/605, at a concentration equal to or greater than 0.1% by weight.

**12.7. Other adverse effects** No data available.

### 12.8. Additional information

#### Estonia Dangerous substances in soil Data

Benzyl alcohol (CAS 100-51-6)	Chemical pesticides (As the total sum of the active substances) 0,5 mg/kg
	Chemical pesticides (As the total sum of the active substances) 20 mg/kg
	Chemical pesticides (As the total sum of the active substances) 5 mg/kg

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

<b>Residual waste</b>	Dispose in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.
<b>EU waste code</b>	08 04 09*. The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Disposal methods/information</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Special precautions</b>	Dispose in accordance with all applicable regulations.

## SECTION 14: Transport information

### ADR

<b>14.1. UN number</b>	UN2735
<b>14.2. UN proper shipping name</b>	AMINES, LIQUID, CORROSIVE, N.O.S. (Poly(oxypropylene)diamine, 4,4'-Methylenebis(cyclohexylamine))
<b>14.3. Transport hazard class(es)</b>	
<b>Class</b>	8
<b>Subsidiary hazard</b>	-
<b>Label(s)</b>	8
<b>Hazard No. (ADR)</b>	80
<b>Tunnel restriction code</b>	E
<b>14.4. Packing group</b>	II
<b>14.5. Environmental hazards</b>	No.
<b>14.6. Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

### RID

<b>14.1. UN number</b>	UN2735
<b>14.2. UN proper shipping name</b>	AMINES, LIQUID, CORROSIVE, N.O.S. (Poly(oxypropylene)diamine, 4,4'-Methylenebis(cyclohexylamine))
<b>14.3. Transport hazard class(es)</b>	
<b>Class</b>	8
<b>Subsidiary hazard</b>	-
<b>Label(s)</b>	8
<b>14.4. Packing group</b>	II
<b>14.5. Environmental hazards</b>	No.
<b>14.6. Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

### ADN

<b>14.1. UN number</b>	UN2735
<b>14.2. UN proper shipping name</b>	AMINES, LIQUID, CORROSIVE, N.O.S. (Poly(oxypropylene)diamine, 4,4'-Methylenebis(cyclohexylamine))
<b>14.3. Transport hazard class(es)</b>	
<b>Class</b>	8
<b>Subsidiary hazard</b>	-
<b>Label(s)</b>	8
<b>14.4. Packing group</b>	II
<b>14.5. Environmental hazards</b>	No.
<b>14.6. Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

### IATA

<b>14.1. UN number</b>	UN2735
<b>14.2. UN proper shipping name</b>	Amines, liquid, corrosive, n.o.s. (Poly(oxypropylene)diamine, 4,4'-Methylenebis(cyclohexylamine))
<b>14.3. Transport hazard class(es)</b>	
<b>Class</b>	8
<b>Subsidiary hazard</b>	-
<b>Label(s)</b>	8
<b>14.4. Packing group</b>	II
<b>14.5. Environmental hazards</b>	No.

**ERG Code** 8L  
**14.6. Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

#### IMDG

**14.1. UN number** UN2735  
**14.2. UN proper shipping name** AMINES, LIQUID, CORROSIVE, N.O.S. (Poly(oxypropylene)diamine, 4,4'-Methylenebis(cyclohexylamine))  
**14.3. Transport hazard class(es)**  
**Class** 8  
**Subsidiary hazard** -  
**Label(s)** 8  
**14.4. Packing group** II  
**14.5. Environmental hazards**  
**Marine pollutant** No.  
**EmS** F-A, S-B  
**14.6. Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.  
**14.7. Maritime transport in bulk according to IMO instruments** Not applicable.

## SECTION 15: Regulatory information

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

#### EU regulations

**Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended**  
Not listed.  
**Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended**  
Not listed.  
**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended**  
Not listed.  
**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended**  
Not listed.  
**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended**  
Not listed.  
**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended**  
Not listed.  
**Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended**  
Not listed.  
**Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA**  
Not listed.

#### Authorisations

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended**  
Not listed.

#### Restrictions on use

**Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use, as amended - Conditions of restriction given for the associated entry number should be considered**  
Benzyl alcohol (CAS 100-51-6) 3  
**Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.**  
Not listed.  
**Regulation 2019/1148 on Marketing and Use of Explosive Precursors, Annex I, as amended**  
Not listed.  
**Regulation 2019/1148 on Marketing and Use of Explosive Precursors, Annex II, as amended**  
Not listed.

#### Other regulations

The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.

#### National regulations

Follow national regulation for work with chemical agents in accordance with Directive 98/24/EC, as amended.  
Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work, as amended.

## France regulations

### France INRS Table of Occupational Diseases

Not regulated.

#### 15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

## SECTION 16: Other information

### List of abbreviations

AGW: Occupational threshold limit value (Arbeitsplatzgrenzwert – Germany).  
DNEL: Derived No-Effect Level.  
EC50: Effective Concentration 50%.  
LC50: Lethal Concentration 50%.  
LD50: Lethal Dose 50%.  
NOEC: No observed effect concentration.  
PBT: Persistent, bioaccumulative and toxic.  
PNEC: Predicted No-Effect Concentration.  
TWA: Time weighted average.  
vPvB: Very Persistent and very Bioaccumulative.

### References

HSDB® - Hazardous Substances Data Bank  
IARC: International Agency for Research on Cancer.  
ECHA: European Chemical Agency.

### Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

### Full text of any statements, which are not written out in full under sections 2 to 15

H301 Toxic if swallowed.  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.  
H373 May cause damage to organs through prolonged or repeated exposure by ingestion.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H412 Harmful to aquatic life with long lasting effects.

### This SDS contains revisions in the following section(s):

2, 11

### Training information

Follow training instructions when handling this material.

### Issued by

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### Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release. It is not to be considered a warranty or quality specification.