




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

- 1.1 Product identifier:** ZH 97
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Relevant uses: Hardener for coatings
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:**
VITON s.r.o.
tr. CSA 609/II
391 82 Veselí nad Lužnicí - Czech Republic
Phone.: +420 381 581 022
info@viton.cz
www.viton.cz
- 1.4 Emergency telephone number:** Toxikologické informační středisko, Na bojišti 1, Prague, Phone: non-stop +420 224 919 293 or +420 224 915 402

SECTION 2: HAZARDS IDENTIFICATION **

- 2.1 Classification of the substance or mixture:**
CLP Regulation (EC) n° 1272/2008:
Classification of this product has been carried out in accordance with CLP Regulation (EC) n° 1272/2008.
Acute Tox. 4: Acute toxicity, Category 4, H302+H332
Aquatic Chronic 2: Hazardous to the aquatic environment, long-term hazard, Category 2, H411
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Corr. 1B: Skin corrosion, Category 1B, H314
Skin Sens. 1B: Sensitisation, skin, Category 1B, H317
- 2.2 Label elements:**
CLP Regulation (EC) n° 1272/2008:
Danger
- 


- Hazard statements:**
Acute Tox. 4: H302+H332 - Harmful if swallowed or if inhaled
Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Sens. 1B: H317 - May cause an allergic skin reaction
- Precautionary statements:**
P101: If medical advice is needed, have product container or label at hand
P102: Keep out of reach of children
P264: Wash thoroughly after handling
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P304+P340: IF INHALED: Remove person to fresh air and keep 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
P501: Dispose of the contents/containers in accordance with the current legislation on waste treatment
- Supplementary information:**
EUH071: Corrosive to the respiratory tract
- Substances that contribute to the classification**
Benzyl alcohol (CAS: 100-51-6); 3-aminomethyl-3,5,5-trimethylcyclohexylamine (CAS: 2855-13-2); m-phenylenebis(methylamine) (CAS: 1477-55-0); 2,4,6-tris(dimethylaminomethyl)phenol (CAS: 90-72-2)
- 2.3 Other hazards:**
Non-applicable

** Changes with regards to the previous version

** Changes with regards to the previous version

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS **

3.1 Substance:













Non-applicable

3.2 Mixture:

Chemical description: Mixture of substances

Components:

In accordance with Annex II of Regulation (EC) n°1907/2006 (point 3), the product contains:

Identification	Chemical name/Classification		Concentration
CAS: 100-51-6 EC: 202-859-9 Index: 603-057-00-5 REACH: 01-2119492630-38-XXXX	Benzyl alcohol Self-classified		25 - <50 %
	Regulation 1272/2008	Acute Tox. 4: H302+H332; Eye Irrit. 2: H319 - Warning 	
CAS: 2855-13-2 EC: 220-666-8 Index: 612-067-00-9 REACH: 01-2119514687-32-XXXX	3-aminomethyl-3,5,5-trimethylcyclohexylamine ATP CLP00		10 - <25 %
	Regulation 1272/2008	Acute Tox. 4: H302+H312; Aquatic Chronic 3: H412; Skin Corr. 1B: H314; Skin Sens. 1: H317 - Danger  	
CAS: 1477-55-0 EC: 216-032-5 Index: Non-applicable REACH: 01-2119480150-50-XXXX	m-phenylenebis(methylamine) Self-classified		3 - <10 %
	Regulation 1272/2008	Acute Tox. 3: H331; Acute Tox. 4: H302; Aquatic Chronic 3: H412; Skin Corr. 1B: H314; Skin Sens. 1B: H317; EUH071 - Danger  	
CAS: 90-72-2 EC: 202-013-9 Index: 603-069-00-0 REACH: 01-2119560597-27-XXXX	2,4,6-tris(dimethylaminomethyl)phenol Self-classified		3 - <10 %
	Regulation 1272/2008	Aquatic Chronic 3: H412; Skin Corr. 1B: H314; Skin Sens. 1B: H317 - Danger  	
CAS: 71074-89-0 EC: 275-162-0 Index: Non-applicable REACH: Non-applicable	Bis[(dimethylamino)methyl]phenol Self-classified		1 - <3 %
	Regulation 1272/2008	Skin Corr. 1B: H314 - Danger 	
CAS: 84852-15-3 EC: 284-325-5 Index: 601-053-00-8 REACH: 01-2119510715-45-XXXX	4-nonylphenol, branched ATP CLP00		1 - <3 %
	Regulation 1272/2008	Acute Tox. 4: H302; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Repr. 2: H361fd; Skin Corr. 1B: H314 - Danger    	

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

** Changes with regards to the previous version

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

Request medical assistance immediately, showing the SDS of this product.

By inhalation:

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate 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:

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SECTION 4: FIRST AID MEASURES (continued)

Non-applicable

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Special hazards arising from the substance or mixture:

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

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:

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

6.3 Methods and material for containment and cleaning up:

It is recommended:

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

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- Precautions for safe manipulation

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

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

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

C.- Technical recommendations to prevent ergonomic and toxicological risks

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

D.- Technical recommendations to prevent environmental risks

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

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SECTION 7: HANDLING AND STORAGE (continued)

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Minimum Temp.: 5 °C
Maximum Temp.: 25 °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 work environment

There are no occupational exposure limits for the substances contained in the product

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Benzyl alcohol CAS: 100-51-6 EC: 202-859-9	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	47 mg/kg	Non-applicable	9,5 mg/kg	Non-applicable
	Inhalation	450 mg/m ³	Non-applicable	90 mg/m ³	Non-applicable
2,4,6-tris(dimethylaminomethyl)phenol CAS: 90-72-2 EC: 202-013-9	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	0,31 mg/m ³	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/m ³	Non-applicable	0,5 mg/m ³	Non-applicable

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Benzyl alcohol CAS: 100-51-6 EC: 202-859-9	Oral	25 mg/kg	Non-applicable	5 mg/kg	Non-applicable
	Dermal	28,5 mg/kg	Non-applicable	5,7 mg/kg	Non-applicable
	Inhalation	40,55 mg/m ³	Non-applicable	8,11 mg/m ³	Non-applicable
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
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/m ³	Non-applicable	0,4 mg/m ³	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	
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	

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification				
m-phenylenebis(methylamine) CAS: 1477-55-0 EC: 216-032-5	STP	10 mg/L	Fresh water	0,094 mg/L
	Soil	0,045 mg/kg	Marine water	0,0094 mg/L
	Intermittent	0,152 mg/L	Sediment (Fresh water)	0,43 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,043 mg/kg
2,4,6-tris(dimethylaminomethyl)phenol CAS: 90-72-2 EC: 202-013-9	STP	0,2 mg/L	Fresh water	0,084 mg/L
	Soil	Non-applicable	Marine water	0,0084 mg/L
	Intermittent	0,84 mg/L	Sediment (Fresh water)	Non-applicable
	Oral	Non-applicable	Sediment (Marine water)	Non-applicable
4-nonylphenol, branched CAS: 84852-15-3 EC: 284-325-5	STP	9,5 mg/L	Fresh water	0,000614 mg/L
	Soil	2,3 mg/kg	Marine water	0,000527 mg/L
	Intermittent	0,00017 mg/L	Sediment (Fresh water)	4,62 mg/kg
	Oral	2,36 g/kg	Sediment (Marine water)	1,23 mg/kg



8.2 Exposure controls:

A.- General security and hygiene measures in the work place



As a preventative measure it is recommended to use basic Personal Protection Equipment, with the corresponding <<CE marking>> in accordance with Directive 89/686/EC. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection



Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory respiratory tract protection	Filter mask for gases and vapours		EN 405:2001+A1:2009	Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment.

C.- Specific protection for the hands



Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	NON-disposable chemical protective gloves		EN 374-1:2003 EN 374-3:2003/AC:2006 EN 420:2003+A1:2009	The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin.

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

D.- Ocular and facial protection



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

E.- Bodily protection



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

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory foot protection	Safety footwear for protection against chemical risk		EN ISO 20345:2011 EN 13832-1:2006	Replace boots at any sign of deterioration.

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2002	 Eyewash stations	DIN 12 899 ISO 3864-1:2002

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

Volatile organic compounds:

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

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

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 20 °C:	Liquid
Appearance:	Fluid
Colour:	Not available
Odour:	Characteristic
Odour threshold:	Non-applicable *

Volatility:

Boiling point at atmospheric pressure:	205 - 360 °C
Vapour pressure at 20 °C:	5 Pa
Vapour pressure at 50 °C:	61 Pa (0 kPa)
Evaporation rate at 20 °C:	Non-applicable *

Product description:

Density at 20 °C:	1030 kg/m ³
Relative density at 20 °C:	Non-applicable *
Dynamic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 40 °C:	Non-applicable *
Concentration:	Non-applicable *
pH:	Non-applicable *
Vapour density at 20 °C:	Non-applicable *
Partition coefficient n-octanol/water 20 °C:	Non-applicable *
Solubility in water at 20 °C:	Non-applicable *

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

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Solubility properties:	Non-applicable *
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *
Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *

Flammability:

Flash Point:	104 °C
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	372 °C
Lower flammability limit:	Non-applicable *
Upper flammability limit:	Non-applicable *

9.2 Other information:

Surface tension at 20 °C:	Non-applicable *
Refraction index:	Non-applicable *

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

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

10.5 Incompatible materials:

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

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), 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 recommended by the occupational exposure limits, it may result in adverse effects on health 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, its consumption causes burns destroying the full thickness of fabrics. For more information on the secondary effects of contact with the skin see section 2.

B- Inhalation (acute effect):

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Acute toxicity : Exposure in high concentration can cause a breakdown in the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
- Corrosivity/Irritability: Corrosive to the respiratory tract
- C- Contact with the skin and the eyes (acute effect):
 - Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
 - Contact with the eyes: Produces serious eye damage after contact.
- D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
 - Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
 - Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
 - Reproductive toxicity: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.
- E- Sensitizing effects:
 - Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
 - Cutaneous: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.
- F- Specific target organ toxicity (STOT) - single exposure:

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

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

Other information:

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
3-aminomethyl-3,5,5-trimethylcyclohexylamine CAS: 2855-13-2 EC: 220-666-8	LD50 oral	1030 mg/kg	Rat
	LD50 dermal	1100 mg/kg	
	LC50 inhalation	>20 mg/L (4 h)	
Benzyl alcohol CAS: 100-51-6 EC: 202-859-9	LD50 oral	500 mg/kg	Rat
	LD50 dermal	2500 mg/kg (ATEi)	
	LC50 inhalation	11 mg/L (4 h) (ATEi)	
m-phenylenebis(methylamine) CAS: 1477-55-0 EC: 216-032-5	LD50 oral	1090 mg/kg	Rat
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	3 mg/L (4 h) (ATEi)	
4-nonylphenol, branched CAS: 84852-15-3 EC: 284-325-5	LD50 oral	1412 mg/kg	Rat
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	>20 mg/L (4 h)	
Bis[(dimethylamino)methyl]phenol CAS: 71074-89-0 EC: 275-162-0	LD50 oral	>2000 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	>20 mg/L (4 h)	
2,4,6-tris(dimethylaminomethyl)phenol CAS: 90-72-2 EC: 202-013-9	LD50 oral	2169 mg/kg	Rat
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	>20 mg/L (4 h)	

SECTION 12: ECOLOGICAL INFORMATION

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

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SECTION 12: ECOLOGICAL INFORMATION (continued)

12.1 Toxicity:

Identification	Acute toxicity		Species	Genus
	LC50			
Benzyl alcohol CAS: 100-51-6 EC: 202-859-9	LC50	646 mg/L (48 h)	Leuciscus idus	Fish
	EC50	400 mg/L (24 h)	Daphnia magna	Crustacean
	EC50	79 mg/L (3 h)	Scenedesmus subspicatus	Algae
3-aminomethyl-3,5,5-trimethylcyclohexylamine CAS: 2855-13-2 EC: 220-666-8	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 EC: 216-032-5	LC50	10 - 100 mg/L (96 h)		Fish
	EC50	10 - 100 mg/L (48 h)		Crustacean
	EC50	10 - 100 mg/L (72 h)		Algae
2,4,6-tris(dimethylaminomethyl)phenol CAS: 90-72-2 EC: 202-013-9	LC50	Non-applicable		
	EC50	Non-applicable		
	EC50	84 mg/L (72 h)	Scenedesmus subspicatus	Algae
4-nonylphenol, branched CAS: 84852-15-3 EC: 284-325-5	LC50	0.05 mg/L (96 h)	Acipenser oxyrinchus	Fish
	EC50	0.14 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	1.3 mg/L (72 h)	Scenedesmus subspicatus	Algae

12.2 Persistence and degradability:

Identification	Degradability		Biodegradability	
	BOD5		Concentration	
Benzyl alcohol CAS: 100-51-6 EC: 202-859-9	BOD5	Non-applicable	100 mg/L	
	COD	Non-applicable	Period	14 days
	BOD5/COD	Non-applicable	% Biodegradable	94 %
3-aminomethyl-3,5,5-trimethylcyclohexylamine CAS: 2855-13-2 EC: 220-666-8	BOD5	Non-applicable	Concentration	7 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	8 %
m-phenylenebis(methylamine) CAS: 1477-55-0 EC: 216-032-5	BOD5	Non-applicable	Concentration	14 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	49 %

12.3 Bioaccumulative potential:

Identification	Bioaccumulation potential	
	BCF	Pow Log
Benzyl alcohol CAS: 100-51-6 EC: 202-859-9	BCF	0
	Pow Log	1.1
	Potential	Low
m-phenylenebis(methylamine) CAS: 1477-55-0 EC: 216-032-5	BCF	3
	Pow Log	0.18
	Potential	Low
2,4,6-tris(dimethylaminomethyl)phenol CAS: 90-72-2 EC: 202-013-9	BCF	
	Pow Log	0.22
	Potential	
4-nonylphenol, branched CAS: 84852-15-3 EC: 284-325-5	BCF	231
	Pow Log	5.4
	Potential	High

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
	Koc		Henry	
Benzyl alcohol CAS: 100-51-6 EC: 202-859-9	Koc	Non-applicable	Henry	Non-applicable
	Conclusion	Non-applicable	Dry soil	Non-applicable
	Surface tension	3,679E-2 N/m (25 °C)	Moist soil	Non-applicable
3-aminomethyl-3,5,5-trimethylcyclohexylamine CAS: 2855-13-2 EC: 220-666-8	Koc	928	Henry	4,46E-4 Pa·m ³ /mol
	Conclusion	Low	Dry soil	No
	Surface tension	Non-applicable	Moist soil	No
m-phenylenebis(methylamine) CAS: 1477-55-0 EC: 216-032-5	Koc	1300	Henry	Non-applicable
	Conclusion	Low	Dry soil	Non-applicable
	Surface tension	Non-applicable	Moist soil	Non-applicable

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SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Absorption/desorption		Volatility	
4-nonylphenol, branched CAS: 84852-15-3 EC: 284-325-5	Koc	22000	Henry	11,02 Pa·m ³ /mol
	Conclusion	Immobile	Dry soil	Yes
	Surface tension	Non-applicable	Moist soil	Yes

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
08 01 11*	Waste paint and varnish containing organic solvents or other dangerous substances	Dangerous

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

HP14 Ecotoxic, HP4 Irritant — skin irritation and eye damage, HP6 Acute Toxicity, HP8 Corrosive, HP13 Sensitising

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommend disposal down the drain. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) n°1907/2006 (REACH) the community or state provisions related to waste management are stated

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

SECTION 14: TRANSPORT INFORMATION **

Transport of dangerous goods by land:

With regard to ADR 2015 and RID 2015:



- 14.1 UN number:** UN3066
- 14.2 UN proper shipping name:** PAINT RELATED MATERIAL
- 14.3 Transport hazard class(es):** 8
Labels: 8
- 14.4 Packing group:** II
- 14.5 Dangerous for the environment:** Yes
- 14.6 Special precautions for user**
Special regulations: 163, 367
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 38-16:

** Changes with regards to the previous version

SECTION 14: TRANSPORT INFORMATION ** (continued)



14.1 UN number:	UN3066
14.2 UN proper shipping name:	PAINT RELATED MATERIAL
14.3 Transport hazard class(es):	8
Labels:	8
14.4 Packing group:	II
14.5 Dangerous for the environment:	Yes
14.6 Special precautions for user	
Special regulations:	163
EmS Codes:	F-A, S-B
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 air:

With regard to IATA/ICAO 2017:



14.1 UN number:	UN3066
14.2 UN proper shipping name:	PAINT RELATED MATERIAL
14.3 Transport hazard class(es):	8
Labels:	8
14.4 Packing group:	II
14.5 Dangerous for the environment:	Yes
14.6 Special precautions for user	
Physico-Chemical properties:	see section 9
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:	Non-applicable

** Changes with regards to the previous version

SECTION 15: REGULATORY INFORMATION

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

Candidate substances for authorisation under the Regulation (EC) 1907/2006 (REACH): 4-nonylphenol, branched

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

Regulation (EC) 1005/2009, about substances that deplete the ozone layer: Non-applicable

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

REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Contains 4-nonylphenol, branched

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc):

- CONTINUED ON NEXT PAGE -

SECTION 15: REGULATORY INFORMATION (continued)

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.

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Relevant instructions for use:

For mixing with appropriate coating materials according to the given volume and weight mixing ratio. These ratios are specified in the technical data sheet of each particular coating material. The dosing accuracy influences chemical, physical and mechanical properties of the coating system. We recommend to use a scale (mixing by weight) or a calibrated measuring cup (mixing by volume). Always first harden the coating material, then dilute it up to the required application viscosity.

Other legislation:

The product could be affected by sectorial legislation

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: OTHER INFORMATION **

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) N° 1907/2006 (Regulation (EC) N° 2015/830)

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

CLP Regulation (EC) n° 1272/2008 (SECTION 2, SECTION 16):

- Hazard statements
- Precautionary statements

TRANSPORT INFORMATION (SECTION 14):

- UN number

Content of the 3rd section presenting modifications (SECTION 3):

- m-phenylenebis(methylamine) (1477-55-0): Hazard statements
- 4-nonylphenol, branched (84852-15-3): Candidate substances for authorisation under the Regulation (EC) 1907/2006 (REACH)

Texts of the legislative phrases mentioned in section 2:

** Changes with regards to the previous version

SECTION 16: OTHER INFORMATION ** (continued)

H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage
H317: May cause an allergic skin reaction
H411: Toxic to aquatic life with long lasting effects
H302+H332: Harmful if swallowed or if inhaled

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

CLP Regulation (EC) n° 1272/2008:

Acute Tox. 3: H331 - Toxic if inhaled
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 3: H412 - Harmful to aquatic life with long lasting effects
Eye Irrit. 2: H319 - Causes serious eye irritation
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 Sens. 1: H317 - May cause an allergic skin reaction
Skin Sens. 1B: H317 - May cause an allergic skin reaction

Classification procedure:

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

Advice related to training:

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

Principal bibliographical sources:

<http://esis.jrc.ec.europa.eu>
<http://echa.europa.eu>
<http://eur-lex.europa.eu>

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
LC50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol–water partition coefficient
Koc: Partition coefficient of organic carbon

*** Changes with regards to the previous version*

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -