

**M5120 - BOND EXPERT B**

Safety Data Sheet

According to Annex II to REACH - Regulation (EU) 2020/878 and to Annex II to UK REACH

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **M5120, M5121**
 Product name: **BOND EXPERT B**

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

Intended use: **Repair putty hardener. Professional use only.**

Uses and attached exposure scenarios of substances

Identified Uses	Industrial	Professional	Consumer
BENZYL ALCOHOL	SU: 8, 9. ERC: 2. PROC: 1, 13, 2, 3, 4, 5, 8a, 8b, 9. PC: 1, 14, 18, 20, 21, 23, 24, 9a, 9b. LCS: F.	ERC: 2. PROC: 1, 13, 19, 2, 3, 4, 5, 8a, 8b, 9. PC: 1, 18, 20, 21, 23, 24. LCS: F.	-
N, N-dimethyl-1,3-diaminopropane 3-(dimethylamino) propylamine	ERC: 2, 5. PROC: 10, 5, 7. LCS: F, IS.	ERC: 8a, 8c. PROC: 10, 5. LCS: F, PW.	-
2-piperazin-1-ylethylamine	ERC: 2, 5. PROC: 10, 3, 7, 8b, 9. LCS: F, IS.	ERC: 8c, 8f. PROC: 10, 11, 5, 8a. LCS: PW.	-
M-PHENYLENEBIS (METHYLAMINE)	ERC: 7. PROC: 1, 15, 2, 3, 5, 8b, 9. PC: 1, 9a. LCS: IS.	SU: 19. ERC: 8c, 8f. PROC: 10, 11, 13, 19, 21. PC: 1, 9a, 9b. LCS: PW.	-
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine	ERC: 5. PROC: 1, 10, 2, 5, 7. LCS: IS.	ERC: 8c. PROC: 1, 10, 11, 5, 8a. PC: 9a. LCS: PW.	-
Fatty acids, C18-unsatd., Dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	ERC: 2, 5. PROC: 2, 4, 5, 6, 7, 8b, 9. LCS: F, IS.	ERC: 2, 8c. PROC: 2, 5, 8a, 8b, 9. LCS: F, PW.	-
Salicylic acid	ERC: 2. PROC: 5, 8a, 8b, 9. LCS: F.	-	-
4,4'-ISOPROPYLIDENDIPHENOL	SU: 12. ERC: 2. PROC: 10, 7, 8a, 8b, 9. LCS: F, IS.	SU: 12. ERC: 2. PROC: 10, 11, 5, 8a, 8b, 9. LCS: F, PW.	-
Triethylenetetramine	ERC: 2, 4. PROC: 10, 5, 7, 8a, 8b, 9. LCS: F, IS.	ERC: 8a, 8d. PROC: 10, 5, 8a, 8b, 9. LCS: PW.	-
2,4,6-TRI (DIMETHYL-AMINOMETHYL) PHENOL	ERC: 2, 5. PROC: 10, 5, 8a, 8b, 9. LCS: F, IS.	ERC: 2, 8c. PROC: 10, 5, 8a, 8b, 9. LCS: F, PW.	-

**M5120 - BOND EXPERT B****Uses Advised Against**

Do you use other than those stated.

1.3. Details of the supplier of the safety data sheet

Name **ILPA ADESIVI SRL**
Full address **Via Ferorelli, 4**
District and Country **70132 BARI (BARI)**
ITALIA
Tel. + 39 0805383837
Fax + 39 0805377807

e-mail address of the competent person
responsible for the Safety Data Sheet **laboratorio@ilpa.it**

1.4. Emergency telephone number

For urgent inquiries refer to

+ 39 0808974667 (Technical support - 8,00 - 17,00 - LUN-GIO; MON-THU; 8:00 - 13:00 VEN; FRI)(Italian Time zone)
Safety Executive (HSE) Chemicals Regulation Directorate 5S.1 Redgrave Court, Merton Road, Bootle, Merseyside. L20 7HS.
Phone: +44 151 9513317

SECTION 2. Hazards identification**2.1. Classification of the substance or mixture**

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Reproductive toxicity, category 1B	H360F	May damage fertility.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Skin sensitization, category 1A	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

**M5120 - BOND EXPERT B**

Signal words: Danger

Hazard statements:

H360F May damage fertility.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

EUH071 Corrosive to the respiratory tract.

EUH205 Contains epoxy constituents. May produce an allergic reaction.
Restricted to professional users.

Precautionary statements:

P370+P378 In case of fire: use carbon dioxide, foam, chemical powder to extinguish.

P201 Obtain special instructions before use.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P260 Do not breathe dust / fume / gas / mist / vapours / spray.

P280 Wear protective gloves / eye protection / face protection.

P308+P313 IF exposed or concerned: Get medical advice / attention.

Contains:

4,4'-ISOPROPYLIDENEDIPHENOL
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine
2,4,6-TRIS(DIMETHYLAMINOMETHYL) PHENOL
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine
Triethylenetetramine
M-PHENYLENEBIS (METHYLAMINE)
3-aminopropyl dimethylamine N,N-dimethyl-1,3-diaminopropane
2-piperazin-1-ylethylamine
Polyethylene polyamine, pentaethylenehexamine fraction

Product not intended for uses provided for by Directive 2004/42/EC.

2.3. Other hazards

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On the basis of available data, the product does not contain any PBT or vPvB in percentage \geq than 0,1%.

The product contains substances with endocrine disrupting properties in concentration \geq 0,1%:

4,4'-ISOPROPYLIDENEDIPHENOL

Salicylic acid

SECTION 3. Composition/information on ingredients**3.2. Mixtures**

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine INDEX - EC 500-191-5 CAS 68082-29-1 REACH Reg. 01-2119972320-44	$6 \leq x < 7$	Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine INDEX - EC 500-101-4 CAS 38294-64-3 REACH Reg. 01-2119965165-33	$6 \leq x < 7$	Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 3 H412
Styrenate phenol INDEX - EC 262-975-0 CAS 61788-44-1 REACH Reg. 01-2119979575-18	$5 \leq x < 6$	Aquatic Chronic 2 H411
2,4,6-TRIS(DIMETHYLAMINOMETHYL) PHENOL INDEX 603-069-00-0 EC 202-013-9 CAS 90-72-2 REACH Reg. 01-2119560597-27	$3.5 \leq x < 4$	Acute Tox. 4 H302, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1 H317 ATE Oral: 500 mg/kg
BENZYL ALCOHOL INDEX 603-057-00-5	$3.5 \leq x < 4$	Acute Tox. 4 H302, Acute Tox. 4 H332, Eye Irrit. 2 H319

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EC 202-859-9

LD50 Oral: 1620 mg/kg, ATE Inhalation vapours: 11 mg/l

CAS 100-51-6

REACH Reg. 01-2119492630-38

Triethylenetetramine

INDEX -

 $2.5 \leq x < 3$

Acute Tox. 4 H302, Acute Tox. 4 H312, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 3 H412

LD50 Oral: 1716.2 mg/kg, LD50 Dermal: 1465.4 mg/kg

EC 292-588-2

CAS 90640-67-8

REACH Reg. 01-2119487919-13

M-PHENYLENEBIS**(METHYLAMINE)**

INDEX -

 $1.5 \leq x < 2$

Acute Tox. 4 H302, Acute Tox. 4 H332, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1B H317, Aquatic Chronic 3 H412, EUH071

ATE Oral: 500 mg/kg, ATE Inhalation mists/powders: 1.5 mg/l

EC 216-032-5

CAS 1477-55-0

REACH Reg. 01-2119480150-50

4,4'-ISOPROPYLIDENEDIPHENOL

INDEX 604-030-00-0

 $1.5 \leq x < 2$

Repr. 1B H360F, Eye Dam. 1 H318, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=10

EC 201-245-8

CAS 80-05-7

REACH Reg. 01-2119475856-23

Salicylic acid

INDEX -

 $1 \leq x < 1.5$

Repr. 2 H361d, Acute Tox. 4 H302, Eye Dam. 1 H318

ATE Oral: 500 mg/kg

EC 200-712-3

CAS 69-72-7

REACH Reg. 01-2119486984-17

2-piperazin-1-ylethylamine

INDEX -

 $0.5 \leq x < 0.6$

Repr. 2 H361, Acute Tox. 3 H311, Acute Tox. 4 H302, STOT RE 1 H372, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 3 H412

ATE Oral: 500 mg/kg, LD50 Dermal: 866 mg/kg

EC 205-411-0

CAS 140-31-8

REACH Reg. 01-2119471486-30

**Polyethylene polyamine,
pentaethylenhexamine fraction**

INDEX 612-064-00-2

 $0.5 \leq x < 0.6$

Acute Tox. 4 H302, Acute Tox. 4 H312, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1

LD50 Oral: 1600 mg/kg, LD50 Dermal: 1465.4 mg/kg

EC 701-266-7

CAS -

REACH Reg. 01-2119485826-22

**3-aminopropylidimethylamine N,N-
dimethyl-1,3-diaminopropane**

INDEX -

 $0.4 \leq x < 0.45$

Flam. Liq. 3 H226, Acute Tox. 4 H302, Acute Tox. 4 H312, Skin Corr. 1B H314, Eye Dam. 1 H318, STOT SE 3 H335, Skin Sens. 1B H317

LD50 Oral: 410 mg/kg, ATE Dermal: 1100 mg/kg

EC 203-680-9

CAS 109-55-7

REACH Reg. 01-2119486842-27

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The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures**4.1. Description of first aid measures**

In case of doubt or in the presence of symptoms contact a doctor and show him this document.

In case of more severe symptoms, ask for immediate medical aid.

EYES: Remove, if present, contact lenses if the situation allows you to do so easily. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Take off immediately all contaminated clothing. Wash immediately and thoroughly with running water (and soap if possible). Get medical advice/attention. Avoid further contact with contaminated clothing.

INGESTION: Do not induce vomiting unless explicitly authorised by a doctor. Rinse your mouth with running water. Do not give anything by mouth to an unconscious person. Get medical advice/attention.

INHALATION: Remove victim to fresh air, away from the accident scene. In the event of respiratory symptoms (coughing, wheezing, breathing difficulty, asthma) keep the victim in a comfortable position for breathing. If necessary administer oxygen. If the subject stops breathing, administer artificial respiration. Get medical advice/attention.

PROTECTIVE MEASURES FOR THE FIRST RESCUE WORKERS: for PPE (personal protection equipment) required for first aid refer to section 8.2 of this safety data sheet.

Rescuer protection

It is good practice for rescuers lending support to a person who has been exposed to a chemical substance or to a mixture to wear personal protective equipment. The nature of such protection depends on the hazard level of the substance or mixture, on the type of exposure and on the extent of the contamination. In the absence of other more specific indications, use of disposable gloves in the event of possible contact with body fluids is recommended. For the type of PPE suitable for the characteristics of the substance or mixture, see section 8.

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

Specific information on symptoms and effects caused by the product are unknown.

DELAYED EFFECTS: Based on the information currently available, there are no known cases of delayed effects following exposure to this product.

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

If symptoms occur, whether acute or delayed, consult a doctor.

Means to have available in the workplace for specific and immediate treatment

Running water for skin and eye wash.

SECTION 5. Firefighting measures**5.1. Extinguishing media****SUITABLE EXTINGUISHING EQUIPMENT**

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

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Do not breathe combustion products.

5.3. Advice for firefighters**GENERAL INFORMATION**

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage**7.1. Precautions for safe handling**

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store in a cool and well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

No use other than specified in Section 1.2 of this safety data sheet.



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SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory references:

DEU	Deutschland	Forschungsgemeinschaft MAK- und BAT-Werte-Liste 2022 Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe Mitteilung 58
ESP	España	Límites de exposición profesional para agentes químicos en España 2023
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France Décret n° 2021-1849 du 28 décembre 2021
HRV	Hrvatska	Pravilnik o izmjenama i dopunama Pravilnika o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
NLD	Nederland	Arbeidsomstandighedenregeling. Lijst van wettelijke grenswaarden op grond van de artikelen 4.3, eerste lid, en 4.16, eerste lid, van het Arbeidsomstandighedenbesluit
PRT	Portugal	Decreto-Lei n.º 1/2021 de 6 de janeiro, valores-limite de exposição profissional indicativos para os agentes químicos. Decreto-Lei n.º 35/2020 de 13 de julho, proteção dos trabalhadores contra os riscos ligados à exposição durante o trabalho a agentes cancerígenos ou mutagénicos
ROU	România	Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum și pentru modificarea și completarea hotărârii guvernului nr. 1.093/2006
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2023

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.06	mg/l
Normal value in marine water	0.006	mg/l
Normal value for fresh water sediment	5.784	mg/kg
Normal value for marine water sediment	0.578	mg/kg
Normal value for the terrestrial compartment	1.121	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Chronic systemic	Effects on workers			
	Acute local	Acute systemic	Chronic local		Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				0,526 mg/kg bw/d				
Inhalation					0,073 mg/m3		0,073 mg/m3	

Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.004	mg/l
Normal value in marine water	0	mg/l
Normal value for fresh water sediment	434.02	mg/kg
Normal value for marine water sediment	43.4	mg/kg
Normal value for the terrestrial compartment	86.78	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Chronic systemic	Effects on workers			
	Acute local	Acute systemic	Chronic local		Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				0,56 mg/kg bw/d				



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Inhalation	0,97 mg/m3			3,9 mg/m3
Skin	0,56	0,56 mg/kg bw/d	1,1	1,1 mg/kg bw/d

Styrenate phenol

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.004	mg/l
Normal value in marine water	0.0004	mg/l
Normal value for fresh water sediment	0.248	mg/kg/d
Normal value for marine water sediment	0.0248	mg/kg/d
Normal value of STP microorganisms	36.2	mg/l
Normal value for the terrestrial compartment	0.0473	mg/kg/d
Normal value for the atmosphere	NPI	

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				7,5 mg/kg bw/d				
Inhalation				13,1 mg/m3				74 mg/m3
Skin				7,5 mg/kg bw/d				24 mg/kg bw/d

2,4,6-TRIS(DIMETHYLAMINOMETHYL) PHENOL

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.084	mg/l
Normal value in marine water	0.0084	mg/l
Normal value for fresh water sediment	NEA	
Normal value for marine water sediment	NEA	
Normal value for water, intermittent release	0.84	mg/l
Normal value of STP microorganisms	0.2	mg/l
Normal value for the terrestrial compartment	NEA	
Normal value for the atmosphere	NPI	

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	VND	VND	VND	VND				
Inhalation	VND	VND	VND	VND	VND	VND	VND	VND
Skin	VND	VND	VND	VND	VND	VND	VND	VND

BENZYL ALCOHOL

Threshold Limit Value

Type	Country	TWA/8h	STEL/15min	Remarks / Observations			
		mg/m3	ppm				
			mg/m3				
			ppm				
AGW	DEU	22	5	44	10	SKIN	11
Predicted no-effect concentration - PNEC							
Normal value in fresh water			1	mg/l			



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Normal value in marine water	0.1	mg/l
Normal value for fresh water sediment	5.27	mg/kg/d
Normal value for marine water sediment	0.527	mg/kg/d
Normal value for water, intermittent release	2.3	mg/l
Normal value of STP microorganisms	39	mg/l
Normal value for the terrestrial compartment	0.456	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	VND	20 mg/kg bw/d	VND	4 mg/kg bw/d				
Inhalation	NPI	27 mg/m3	NPI	5,4 mg/m3	NPI	110 mg/m3	NPI	22 mg/m3
Skin	NPI	20 mg/kg bw/d	NPI	4 mg/kg bw/d	NPI	40 mg/kg bw/d	NPI	8 mg/kg bw/d

Triethylenetetramine									
Predicted no-effect concentration - PNEC									
Normal value in fresh water					0.027				mg/l
Normal value in marine water					0.003				mg/l
Normal value for fresh water sediment					8.572				mg/kg/d
Normal value for marine water sediment					0.857				mg/kg/d
Normal value of STP microorganisms					0.13				mg/l
Normal value for the terrestrial compartment					1.25				mg/kg/d
Normal value for the atmosphere					NPI				

Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		20 mg/kg bw/d		0,41 mg/kg/d				
Inhalation		1600 mg/m3				5380 mg/m3		
Skin			0,256 mg/kg bw/d				0,57 mg/kg bw/d	

4,4'-ISOPROPYLIDENEDIPHENOL					
Threshold Limit Value					
Type	Country	TWA/8h	STEL/15min	Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm
AGW	DEU	5	5		INHAL
MAK	DEU	5	5		INHAL
VLA	ESP	2			
VLEP	FRA	2			
GVI/KGVI	HRV	2			INHAL
VLEP	ITA	10			INHAL
TGG	NLD	2			INHAL
VLE	PRT	2			INHAL
TLV	ROU	2			INHAL

**ILPA ADESIVI SRL**

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WEL	GBR	2	
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OEL	EU	2	INHAL
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Predicted no-effect concentration - PNEC		
Normal value in fresh water	0.018	mg/l
Normal value in marine water	0.018	mg/l
Normal value for fresh water sediment	1.2	mg/kg
Normal value for marine water sediment	0.24	mg/kg
Normal value for water, intermittent release	0.011	mg/l
Normal value of STP microorganisms	320	mg/l
Normal value for the terrestrial compartment	3.7	mg/kg

Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		0,004 mg/kg bw/d		0,004 mg/kg bw/d				
Inhalation		1 mg/m3		1 mg/m3		2 mg/m3		2 mg/m3
Skin	0,0019 mg/kg/d							

M-PHENYLENEBIS (METHYLAMINE)

Threshold Limit Value					
Type	Country	TWA/8h	STEL/15min	Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm
VLEP	FRA		0.1		
TLV-ACGIH			0.018 (C)		SKIN

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0.094	mg/l
Normal value in marine water	0.009	mg/l
Normal value for fresh water sediment	12.4	mg/kg/d
Normal value for marine water sediment	1.24	mg/kg/d
Normal value of STP microorganisms	10	mg/l
Normal value for the terrestrial compartment	2.44	mg/kg/d
Normal value for the atmosphere	NPI	

Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI		NPI				
Inhalation	NPI	NPI	NPI	NPI		NPI	0,2 mg/m3	1,2 mg/m3
Skin	NPI	NPI	NPI	NPI		NPI		0,33 mg/kg bw/d

Salicylic acid

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0.2	mg/l
Normal value in marine water	0.02	mg/l



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Normal value for fresh water sediment	1.42	mg/kg/d
Normal value for marine water sediment	0.142	mg/kg/d
Normal value of STP microorganisms	162	mg/l
Normal value for the terrestrial compartment	0.166	mg/kg/d
Normal value for the atmosphere	NPI	

Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation							5 mg/m3	5 mg/m3
Skin					NPI	NPI	NPI	2,5 mg/kg bw/d

Polyethylene polyamine, pentaethylenehexamine fraction

Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				0,21 mg/kg bw/d				
Inhalation				0,14 mg/m3				0,82 mg/m3

Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				0,21 mg/kg bw/d				
Inhalation				0,14 mg/m3				0,82 mg/m3

2-piperazin-1-ylethylamine

Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI		NPI				
Inhalation	NPI	NPI	NPI	NPI	0,08 mg/m3	10,6 mg/m3	0,015 mg/m3	10,6 mg/m3
Skin	NPI	NPI	NPI	NPI	NPI	NPI	NPI	3,33 mg/kg bw/d

Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI		NPI				
Inhalation	NPI	NPI	NPI	NPI	0,08 mg/m3	10,6 mg/m3	0,015 mg/m3	10,6 mg/m3
Skin	NPI	NPI	NPI	NPI	NPI	NPI	NPI	3,33 mg/kg bw/d

3-aminopropyldimethylamine N,N-dimethyl-1,3-diaminopropane



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Predicted no-effect concentration - PNEC								
Normal value in fresh water	0.073			mg/l				
Normal value in marine water	0.007			mg/l				
Normal value for fresh water sediment	0.735			mg/kg/d				
Normal value for marine water sediment	0.073			mg/kg/d				
Normal value of STP microorganisms	10			mg/l				
Normal value for the terrestrial compartment	0.104			mg/kg/d				
Normal value for the atmosphere	NPI							
Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation								1,2 mg/m3

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

HAND PROTECTION

Protect hands with category III work gloves.

The following should be considered when choosing work glove material (see standard EN 374): compatibility, degradation, permeability time.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (see standard EN ISO 16321).

RESPIRATORY PROTECTION

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. Use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387).

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

**M5120 - BOND EXPERT B****ENVIRONMENTAL EXPOSURE CONTROLS**

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Properties	Value	Information
Appearance	pasty	
Colour	White, Gray or Black	
Odour	amino	
Odour threshold	5,5 ppm	Remark:font: PUBCHEM (https://pubchem.ncbi.nlm.nih.gov) Substance:BENZYL ALCOHOL
Melting point / freezing point	-15.2 °C	Remark:FONT: PUBCHEM (https://pubchem.ncbi.nlm.nih.gov) Substance:BENZYL ALCOHOL
Initial boiling point	205.3 °C	Remark:FONT: PUBCHEM (https://pubchem.ncbi.nlm.nih.gov) Substance:BENZYL ALCOHOL
Flammability	not flammable	
Lower explosive limit	not available	
Upper explosive limit	not available	
Flash point	> 93 °C	
Auto-ignition temperature	not available	
Decomposition temperature	not available	
pH	10 - 12	Remark:50%/50% w%/w% solution in H2O Concentration: 50 %
Kinematic viscosity	440000 mm ² /s	Remark:Kinematic viscosity>20,5 mm ² /s, (at 40°C) Temperature: 25 °C
Dynamic viscosity	700 ± 150 Pas	Temperature: 25 °C
Solubility	partially soluble in water	
Partition coefficient: n-octanol/water	1,10	Substance:BENZYL ALCOHOL
Vapour pressure	0,094 mmHg	Remark:FONT: PUBCHEM (https://pubchem.ncbi.nlm.nih.gov) Substance:BENZYL ALCOHOL
Density and/or relative density	1.6 g/cm ³	Temperature: 25 °C
Relative vapour density	3,72 (air=1)	Remark:FONT: PUBCHEM (https://pubchem.ncbi.nlm.nih.gov) Substance:BENZYL ALCOHOL
Particle characteristics	not applicable	

9.2. Other information

**M5120 - BOND EXPERT B**

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

VOC (Directive 2010/75/EU)	7.73 %	-	123.65	g/litre
VOC (volatile carbon)	5.60 %	-	89.55	g/litre

SECTION 10. Stability and reactivity**10.1. Reactivity**

There are no particular risks of reaction with other substances in normal conditions of use.

BENZYL ALCOHOL

Decomposes at temperatures above 870°C/1598°F.Possibility of explosion.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

BENZYL ALCOHOL

May react dangerously with: hydrobromic acid,iron,oxidising agents,sulphuric acid.Risk of explosion on contact with: phosphorus trichloride.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

BENZYL ALCOHOL

Avoid exposure to: air,sources of heat,naked flames.

10.5. Incompatible materials

BENZYL ALCOHOL

Incompatible with: sulphuric acid,oxidising substances,aluminium.

10.6. Hazardous decomposition products

Information not available

**M5120 - BOND EXPERT B****SECTION 11. Toxicological information**

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

Corrosive to the respiratory tract.

ATE (Inhalation - mists / powders) of the mixture:	> 5 mg/l
ATE (Inhalation - vapours) of the mixture:	> 20 mg/l
ATE (Oral) of the mixture:	>2000 mg/kg
ATE (Dermal) of the mixture:	>2000 mg/kg

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine

LD50 (Dermal):	> 2000 mg/kg rat
LD50 (Oral):	1030 mg/kg rat
LC50 (Inhalation vapours):	5.01 mg/l/4h rat

Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine

LD50 (Dermal):	> 2000 mg/kg rat
LD50 (Oral):	> 2000 mg/kg rat

Styrenate phenol

LD50 (Dermal):	> 2000 mg/kg rat, according to guideline OECD Guideline 402
LD50 (Oral):	2000 mg/kg rat, according to guideline OECD Guideline 423
LC50 (Inhalation vapours):	> 4.92 mg/l/4h rat, according to guideline OECD Guideline 403

2,4,6-TRIS(DIMETHYLAMINOMETHYL) PHENOL

LD50 (Dermal):	> 1 mg/kg rat. (from ECHA website)
LD50 (Oral):	2169 mg/kg rat, according to (OECD Guideline 401)
ATE (Oral):	500 mg/kg estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)

BENZYL ALCOHOL

LD50 (Dermal):	2000 mg/kg Rabbit, Raw Mater. Data Handb. Vol. 1 (Organic Solvents), 6
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**M5120 - BOND EXPERT B**

LD50 (Oral): 1620 mg/kg Rat, according to standard acute method ECHA website
LC50 (Inhalation vapours): > 4.1 mg/l/4h Rat, according to (OECD Guideline 403)
ATE (Inhalation vapours): 11 mg/l estimate from table 3.1.2 of Annex I of the CLP
(figure used for calculation of the acute toxicity estimate of the mixture)

Triethylenetetramine

LD50 (Dermal): 1465.4 mg/kg rabbit, according to guideline OECD Guideline 402
LD50 (Oral): 1716.2 mg/kg rat, equivalent or similar to guideline OECD Guideline 401

4,4'-ISOPROPYLIDENEDIPHENOL

LD50 (Dermal): 3000 mg/kg Rabbit
LD50 (Oral): 4100 mg/kg

M-PHENYLENEBIS (METHYLAMINE)

LD50 (Dermal): 3100 mg/kg Rat
LD50 (Oral): > 200 mg/kg Rat - Sprague-Dawley
ATE (Oral): 500 mg/kg estimate from table 3.1.2 of Annex I of the CLP
(figure used for calculation of the acute toxicity estimate of the mixture)

LC50 (Inhalation mists/powders): 1.34 mg/l

Salicylic acid

LD50 (Dermal): > 2000 mg/kg rat, according to guideline OECD Guideline 402
LD50 (Oral): 891 mg/kg rat, equivalent or similar to guideline OECD Guideline 401
ATE (Oral): 500 mg/kg estimate from table 3.1.2 of Annex I of the CLP
(figure used for calculation of the acute toxicity estimate of the mixture)

Polyethylene polyamine, pentaethylenhexamine fraction

LD50 (Dermal): 1465.4 mg/kg rabbit
LD50 (Oral): 1600 mg/kg rat

2-piperazin-1-ylethylamine

LD50 (Dermal): 866 mg/kg rabbit, Am Ind Hyg Assoc J, vol 23 ; p. 95
LD50 (Oral): 2097 mg/kg Rat, Am Ind Hyg Assoc J, vol 23 ; p. 95
ATE (Oral): 500 mg/kg estimate from table 3.1.2 of Annex I of the CLP
(figure used for calculation of the acute toxicity estimate of the mixture)

3-aminopropyldimethylamine N,N-dimethyl-1,3-diaminopropane

LD50 (Dermal): 2138.7 mg/kg rabbit, according to guideline OECD Guideline 402
ATE (Dermal): 1100 mg/kg estimate from table 3.1.2 of Annex I of the CLP
(figure used for calculation of the acute toxicity estimate of the mixture)

LD50 (Oral): 410 mg/kg rat, according to guideline OECD Guideline 401
LC50 (Inhalation vapours): > 4.31 mg/l/4h rat, according to guideline OECD Guideline 403

SKIN CORROSION / IRRITATION

Corrosive for the skin

Classification according to the experimental Ph value

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

**M5120 - BOND EXPERT B**GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

May damage fertility

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class Viscosity: 440000 mm²/s

11.2. Information on other hazards

Based on the available data, the product contains the following endocrine disruptors in concentrations of 0.1% or greater by weight that may have endocrine disrupting effects on humans and cause adverse effects on the exposed individual or his or her progeny:

4,4'-ISOPROPYLIDENEDIPHENOL

Salicylic acid

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it has negative effects on the aquatic environment.

12.1. Toxicity**M-PHENYLENEBIS (METHYLAMINE)**

LC50 - for Fish	87.6 mg/l/96h <i>Oryzias latipes</i>
EC50 - for Crustacea	15.2 mg/l/48h <i>Daphnia magna</i>
EC50 - for Algae / Aquatic Plants	20.3 mg/l/72h <i>Pseudokirchnerella subcapitata</i>

BENZYL ALCOHOL

LC50 - for Fish	460 mg/l/96h <i>Pimephales promelas</i> , equivalent or similar to (EPA OPP 72-1)
EC50 - for Crustacea	230 mg/l/48h <i>Daphnia magna</i> , according to (OECD Guideline 202)
EC50 - for Algae / Aquatic Plants	500 mg/l/72h <i>Pseudokirchnerella subcapitata</i> , according to (OECD Guideline 201)
Chronic NOEC for Crustacea	66 mg/l <i>Daphnia magna</i> , 21d according to (OECD Guideline 211)

**M5120 - BOND EXPERT B****2,4,6-TRIS(DIMETHYLAMINOMETHYL)
PHENOL**

LC50 - for Fish 718 mg/l/96h *Cyprinus capio* (Rif. SDS fornitore)
EC50 - for Algae / Aquatic Plants 84 mg/l/72h *Scenedesmus subspicatus* (OECD Guideline 201, GLP)

4,4'-ISOPROPYLIDENEDIPHENOL

LC50 - for Fish 9.4 mg/l/96h *Menidia menidia*
EC50 - for Crustacea 10.2 mg/l/48h *Daphnia magna*

**Fatty acids, C18-unsatd., dimers, oligomeric
reaction products with tall-oil fatty acids and
triethylenetetramine**

LC50 - for Fish 10 mg/l/96h
EC50 - for Algae / Aquatic Plants 4.34 mg/l/72h

**4,4'-Isopropylidenediphenol, oligomeric
reaction products with 1-chloro-2,3-
epoxypropane, reaction products with 3-
aminomethyl-3,5,5-trimethylcyclohexylamine**

LC50 - for Fish 110 mg/l/96h
EC50 - for Crustacea 23 mg/l/48h daphnie
EC50 - for Algae / Aquatic Plants > 50 mg/l/72h
Chronic NOEC for Crustacea 3 mg/l 21 d, daphnie

**3-aminopropylidimethylamine N,N-dimethyl-
1,3-diaminopropane**

LC50 - for Fish 122 mg/l/96h equivalent or similar to guideline OECD Guideline 203
EC50 - for Crustacea 59.46 mg/l/48h *Daphnia magna*, according to guideline EU Method C.2
EC50 - for Algae / Aquatic Plants 34 mg/l/72h *Pseudokirchneriella subcapitata*, according to guideline OECD Guideline 201
Chronic NOEC for Fish > 10 mg/l equivalent or similar to guideline OECD Guideline 203

Triethylenetetramine

LC50 - for Fish 330 mg/l/96h *Pimephales promelas*
EC50 - for Crustacea 21.1 mg/l/48h *Daphnia magna*,
EC50 - for Algae / Aquatic Plants 20 mg/l/72h *Pseudokirchneriella subcapitata*, according to guideline OECD Guideline 201

Salicylic acid

LC50 - for Fish 1370 mg/l/96h *Pimephales promelas*, equivalent or similar to guideline OECD Guideline 203
EC50 - for Crustacea 870 mg/l/48h *Daphnia magna*, equivalent or similar to guideline OECD Guideline 202
EC50 - for Algae / Aquatic Plants > 100 mg/l/72h *Desmodesmus subspicatus*, according to guideline OECD Guideline 201

2-piperazin-1-ylethylamine

LC50 - for Fish 2190 mg/l/96h *Pimephales promelas*,
EC50 - for Crustacea 58 mg/l/48h *Daphnia magna*, according to guideline OECD Guideline 202

**M5120 - BOND EXPERT B**

EC50 - for Algae / Aquatic Plants	> 1000 mg/l/72h Pseudokirchneriella subcapitata, according to guideline OECD Guideline 201
Chronic NOEC for Fish	1030 mg/l Pimephales promelas
Chronic NOEC for Crustacea	10 mg/l Daphnia magna, according to guideline OECD Guideline 202
Polyethylene polyamine, pentaethylenehexamine fraction LC50 - for Fish	0.18 mg/l/96h Poecilia reticulata, according to guideline EU Method C.1
EC50 - for Crustacea	17.5 mg/l/48h Daphnia magna, according to guideline EU Method C.2
EC50 - for Algae / Aquatic Plants	0.7 mg/l/72h Pseudokirchneriella subcapitata, according to guideline OECD Guideline 201
Chronic NOEC for Fish	0.32 mg/l Poecilia reticulata, according to guideline EU Method C.1
Chronic NOEC for Crustacea	10 mg/l Daphnia magna, according to guideline EU Method C.2
Styrenate phenol LC50 - for Fish	1.77 mg/l/96h Danio rerio, according to guideline OECD Guideline 203
EC50 - for Crustacea	4.6 mg/l/48h Daphnia magna, according to guideline OECD Guideline 202
EC50 - for Algae / Aquatic Plants	1.35 mg/l/72h Desmodosmus subspicatus, according to guideline OECD Guideline 201
Chronic NOEC for Algae / Aquatic Plants	0.42 mg/l esmus subspicatus, according to guideline OECD Guideline 201

12.2. Persistence and degradability**M-PHENYLENEBIS (METHYLAMINE)**

Solubility in water 1000 - 10000 mg/l

Rapidly degradable
BENZYL ALCOHOLRapidly degradable
equivalent or similar to (OECD Guideline 301)

2,4,6-TRIS(DIMETHYLAMINOMETHYL)

PHENOL

Solubility in water > 10000 mg/l

NOT rapidly degradable

OECD Guideline 301 D, GLP
4,4'-ISOPROPYLIDENEDIPHENOL

Solubility in water 301 mg/l

Rapidly degradable

Fatty acids, C18-unsatd., dimers, oligomeric
reaction products with tall-oil fatty acids and
triethylenetetramine

NOT rapidly degradable

4,4'-Isopropylidenediphenol, oligomeric
reaction products with 1-chloro-2,3-
epoxypropane, reaction products with 3-
aminomethyl-3,5,5-trimethylcyclohexylamine
NOT rapidly degradable3-aminopropyl-dimethylamine N,N-dimethyl-
1,3-diaminopropane

Rapidly degradable

Salicylic acid

Rapidly degradable

**M5120 - BOND EXPERT B**

2-piperazin-1-ylethylamine

Solubility in water 100000 mg/l at the temperature of:20°C

Degradability: information not available

Polyethylene polyamine,
pentaethylenehexamine fraction

Solubility in water > 500000 mg/l

Rapidly degradable
Styrenate phenol

Solubility in water 1.95 mg/l according to guideline according to guideline

12.3. Bioaccumulative potential

M-PHENYLENEBIS (METHYLAMINE)

Partition coefficient: n-octanol/water 0.18

BENZYL ALCOHOL

Partition coefficient: n-octanol/water 1.1

2,4,6-TRIS(DIMETHYLAMINOMETHYL)
PHENOL

Partition coefficient: n-octanol/water -0.66

4,4'-ISOPROPYLIDENEDIPHENOL

Partition coefficient: n-octanol/water 3.4

Polyethylene polyamine,
pentaethylenehexamine fraction

Partition coefficient: n-octanol/water -3.36 20°C

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage \geq than 0,1%.

12.6. Endocrine disrupting properties

Based on the available data, the product contains the following endocrine disruptors in concentrations of 0.1% or greater by weight that may have endocrine disrupting effects on the environment and on animal species causing adverse effects on the exposed organisms or on their progeny:

4,4'-ISOPROPYLIDENEDIPHENOL

12.7. Other adverse effects

Information not available

**M5120 - BOND EXPERT B****SECTION 13. Disposal considerations****13.1. Waste treatment methods**

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to ADR restrictions.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information**14.1. UN number or ID number**

ADR / RID, IMDG, IATA: UN 2735

14.2. UN proper shipping name

ADR / RID: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Contains: 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine; Triethylenetetramine; 2,4,6-TRIS(DIMETHYLAMINOMETHYL) PHENOL; M-PHENYLENEBIS (METHYLAMINE)) MIXTURE

IMDG: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Contains: 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine; Triethylenetetramine; 2,4,6-TRIS(DIMETHYLAMINOMETHYL) PHENOL; M-PHENYLENEBIS (METHYLAMINE)) MIXTURE

IATA: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Contains: 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine; Triethylenetetramine; 2,4,6-TRIS(DIMETHYLAMINOMETHYL) PHENOL; M-PHENYLENEBIS (METHYLAMINE)) MIXTURE

14.3. Transport hazard class(es)

ADR / RID: Class: 8 Label: 8



IMDG: Class: 8 Label: 8



IATA: Class: 8 Label: 8

**14.4. Packing group**

ADR / RID, IMDG, IATA: II

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous



**M5120 - BOND EXPERT B**

IMDG: Marine Pollutant



IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 80	Limited Quantities: 1 L	Tunnel restriction code: (E)
	Special provision: 274		
IMDG:	EMS: F-A, S-B	Limited Quantities: 1 L	
IATA:	Cargo:	Maximum quantity: 30 L	Packaging instructions: 855
	Passengers:	Maximum quantity: 1 L	Packaging instructions: 851
	Special provision:	A3, A803	

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Seveso Category - Directive 2012/18/EU: E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006Product

Point 3 - 40

Contained substance

Point 75

Point 30-66 4,4'-ISOPROPYLIDENEDIPHENOL
REACH Reg.: 01-2119475856-23Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors

not applicable

Substances in Candidate List (Art. 59 REACH)

4,4'-ISOPROPYLIDENEDIPHENOL

REACH Reg.: 01-2119475856-23

Substances subject to authorisation (Annex XIV REACH)

**M5120 - BOND EXPERT B**

None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 3	Flammable liquid, category 3
Repr. 1B	Reproductive toxicity, category 1B
Repr. 2	Reproductive toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Skin Sens. 1B	Skin sensitization, category 1B
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H226	Flammable liquid and vapour.
H360F	May damage fertility.

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H361	Suspected of damaging fertility or the unborn child.
H361d	Suspected of damaging the unborn child.
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H372	Causes damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH071	Corrosive to the respiratory tract.
EUH205	Contains epoxy constituents. May produce an allergic reaction.

Use descriptor system:

ERC	2	Formulation into mixture
ERC	4	Use of non-reactive processing aid at industrial site (no inclusion into or onto article)
ERC	5	Use at industrial site leading to inclusion into/onto article
ERC	7	Use of functional fluid at industrial site
ERC	8a	Widespread use of non- reactive processing aid (no inclusion into or onto article, indoor)
ERC	8c	Widespread use leading to inclusion into/onto article (indoor)
ERC	8d	Widespread use of non- reactive processing aid (no inclusion into or onto article, outdoor)
ERC	8f	Widespread use leading to inclusion into/onto article (outdoor)
LCS	F	Formulation or repacking
LCS	IS	Use at industrial sites
LCS	PW	Widespread use by professional workers
PC	1	Adhesives, sealants
PC	14	Metal surface treatment products
PC	18	Ink and toners
PC	20	Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents
PC	21	Laboratory chemicals
PC	23	Leather treatment products
PC	24	Lubricants, greases, release products
PC	9a	Coatings and paints, thinners, paint removers
PC	9b	Fillers, putties, plasters, modelling clay
PROC	1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
PROC	10	Roller application or brushing
PROC	11	Non industrial spraying
PROC	13	Treatment of articles by dipping and pouring
PROC	15	Use as laboratory reagent
PROC	19	Manual activities involving hand contact
PROC	2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
PROC	21	Low energy manipulation and handling of substances bound in/on materials or articles
PROC	3	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC	4	Chemical production where opportunity for exposure arises

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PROC	5	Mixing or blending in batch processes
PROC	6	Calendering operations
PROC	7	Industrial spraying
PROC	8a	Transfer of substance or mixture (charging and discharging) at non- dedicated facilities
PROC	8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC	9	Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
SU	12	Manufacture of plastics products, including compounding and conversion
SU	19	Building and construction work
SU	8	Manufacture of bulk,large scale chemicals (including petroleum products)
SU	9	Manufacture of fine chemicals

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent, bioaccumulative and toxic
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PMT: Persistent, mobile and toxic
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very persistent and very bioaccumulative
- vPvM: Very persistent and very mobile
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)

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- 17. Regulation (EU) 2019/1148
- 18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
- 19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
- 20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
- 21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
- 22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
- 23. Delegated Regulation (UE) 2023/707
- 24. Delegated Regulation (UE) 2023/1434 (XIX Atp. CLP)
- 24. Delegated Regulation (UE) 2023/1435 (XX Atp. CLP)
- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Training for workers:

Worker training should include content, updates and duration depending on the risk profiles assigned to the business sectors they belong