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: **0470189P**
Product name **SYNTECH AS 31 COMP.B**

UFI : **SEW0-F0YH-R00Y-MW07**

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

Intended use **Epoxy putty, thixotropic, for fixings and structural repairs**

1.3. Details of the supplier of the safety data sheet

Name **AZICHEM SRL**
Full address **Via G. Gentile 16/A**
District and Country **46044 Goito (Mantova)**
Italia
Tel. 0376604185

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

1.4. Emergency telephone number

For urgent inquiries refer to

Osp. Pediatrico Bambino Gesù ROMA: 06 68593726
Az. Osp. Univ. Foggia FOGGIA: 800183459
Az. Osp. "A. Cardarelli" NAPOLI: 081-5453333
Policlinico "Umberto I" ROMA: 06-49978000
Policlinico "A. Gemelli" ROMA: 06-3054343
Az. Osp. "Careggi" U.O. Tossicologia Medica FIRENZE: 055-7947819
Centro Nazionale di Informazione Tossicologica PAVIA: 0382-24444
Osp. Niguarda Ca' Granda MILANO: 02-66101029
Azienda Ospedaliera Papa Giovanni XXII BERGAMO: 800883300
Azienda Ospedaliera Integrata VERONA: 800011858

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 2	H361	Suspected of damaging fertility or the unborn child.
Acute toxicity, category 4	H302	Harmful if swallowed.
Specific target organ toxicity - repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.
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 3	H412	Harmful to aquatic life with long lasting effects.

SECTION 2. Hazards identification ... / >>

2.2. Label elements

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

Hazard pictograms:

Signal words: Danger

Hazard statements:

H361	Suspected of damaging fertility or the unborn child.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

P260	Do not breathe dust / fume / gas / mist / vapours / spray.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P310	Immediately call a POISON CENTER / doctor / . . .
P264	Wash . . . thoroughly after handling.

Contains:
2-piperazin-1-ylethylamine
FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED
Fatty acids, C18-unsaturated, dimers, oligomeric reaction products with tall oil fatty acids and triethylenetetramine
4,4 Methylenebis (cyclohexylamine)
Triethylenetetramine

2.3. Other hazards

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

The product does not contain substances with endocrine disrupting properties in concentration ≥ 0.1%.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification		x = Conc. %	Classification (EC) 1272/2008 (CLP)
BENZYL ALCOHOL			
INDEX	*603-057-00-5*	28,5 ≤ x < 30	**Acute Tox. 4 H302, Acute Tox. 4 H332**
EC	*202-859-9*		**LD50 Oral: 1230 mg/kg, STA Inhalation vapours: 11 mg/l**
CAS	*100-51-6*		
QUARTZ (granular)			
INDEX		28,5 ≤ x < 30	**Substance with a community workplace exposure limit.**
EC	*238-878-4*		
CAS	*14808-60-7*		
FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED			
INDEX		23,5 ≤ x < 25	**Acute Tox. 3 H301, STOT RE 2 H373, Skin Corr. 1C H314, Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 3 H412**
EC	*603-894-6*		**STA Oral: 100 mg/kg**
CAS	*135108-88-2*		

SECTION 3. Composition/information on ingredients ... / >>

REACH Reg. *01-2119983522-33-XXXX*
2-piperazin-1-ylethylamine
INDEX *612-105-00-4* 4,5 ≤ x < 5 **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**
EC *205-411-0* **STA Oral: 500 mg/kg, LD50 Dermal: 866 mg/kg**
CAS *140-31-8*
Fatty acids, C18-unsaturated, dimers, oligomeric reaction products with tall oil fatty acids and triethylenetetramine
INDEX 2,5 ≤ x < 3 **Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *500-191-5*
CAS *68082-29-1*
2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL
INDEX *603-069-00-0* 2,5 ≤ x < 3 **Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315**
EC *202-013-9* **STA Oral: 500 mg/kg**
CAS *90-72-2*
4,4 Methylenebis (cyclohexylamine)
INDEX 2,5 ≤ x < 3 **Acute Tox. 4 H302, STOT RE 2 H373, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1B H317**
EC *217-168-8* **LD50 Oral: 350 mg/kg**
CAS *1761-71-3*
REACH Reg. *01-2119541673-38-XXXX*
C12-C16 Propoxylated ethoxylated alcohol
INDEX 2,5 ≤ x < 3 **Aquatic Acute 1 H400 M=1**
EC *695-643-2*
CAS *68213-24-1*
Triethylenetetramine
INDEX 0,354 ≤ x < 0,404 **Acute Tox. 4 H312, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 3 H412**
EC *203-950-6* **LD50 Dermal: 1465,4 mg/kg**
CAS *112-24-3*
REACH Reg. *01-2119487919-13-XXXX*
PHOSPHORIC ACID
INDEX *015-011-00-6* 0,354 ≤ x < 0,404 **Met. Corr. 1 H290, Acute Tox. 4 H302, Skin Corr. 1B H314, Eye Dam. 1 H318, Classification note according to Annex VI to the CLP Regulation: B**
EC *231-633-2* **Met. Corr. 1 H290: ≥ 20%, Skin Corr. 1B H314: ≥ 25%, Skin Irrit. 2 H315: ≥ 10%, Eye Dam. 1 H318: ≥ 25%, Eye Irrit. 2 H319: ≥ 10%**
CAS *7664-38-2* **LD50 Oral: 1530 mg/kg**

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

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

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

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

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

Information not available

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.

SECTION 5. Firefighting measures ... / >>

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products.

FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED
Incomplete combustion can form carbon monoxide. May generate ammonia gas. May generate toxic nitrogen oxide gases. Combustion produces harmful and toxic fumes. Downwind personnel must be evacuated.

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

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory references:

BGR	България	НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. ЗА ЗАЩИТА НА РАБОТЕЩИТЕ ОТ РИСКОВЕ, СВЪРЗАНИ С ЕКСПОЗИЦИЯ НА ХИМИЧНИ АГЕНТИ ПРИ РАБОТА (изм. ДВ. бр.5 от 17 Януари 2020г.)
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 FranceDécret n° 2021-1849 du 28 décembre 2021
GRC	Ελλάδα	Π.Δ. 26/2020 (ΦΕΚ 50/Α` 6.3.2020) Εναρμόνιση της ελληνικής νομοθεσίας προς τις διατάξεις των οδηγιών 2017/2398/ΕΕ, 2019/130/ΕΕ και 2019/983/ΕΕ «για την τροποποίηση της οδηγίας 2004/37/ΕΚ ''σχετικά με την προστασία των εργαζομένων από τους κινδύνους που συνδέονται με την έκθεση σε καρκινογόνους ή μεταλλαξιγόνους παράγοντες κατά την εργασία''»
HUN	Magyarország	Az innovációért és technológiáért felelős miniszter 5/2020. (II. 6.) ITM rendelete a kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
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
POL	Polska	Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
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

QUARTZ (granular)

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP		0,05			RESP
VLEP	FRA	0,1				RESP
VLEP	ITA	0,1				RESP
VLE	PRT	0,025				RESP
NDS/NDSCh	POL	0,1				RESP
TLV	ROU	0,1				RESP
OEL	EU	0,1				RESP
TLV-ACGIH		0,025				RESP

SECTION 8. Exposure controls/personal protection ... / >>

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	1		2		
AGW	DEU	2		4		INHAL
MAK	DEU	2		4		INHAL
VLA	ESP	1		2		
VLEP	FRA	1	0,2	2	0,5	
TLV	GRC	1		3		
AK	HUN	1		2		
VLEP	ITA	1		2		
VLE	PRT	1		2		
NDS/NDSCh	POL	1		2		
TLV	ROU	1		2		
WEL	GBR	1		2		
OEL	EU	1		2		
TLV-ACGIH		1		3		

BENZYL ALCOHOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm		
TLV	BGR	5					
AGW	DEU	22	5	44	10	SKIN	11
MAK	DEU	22	5	44	10	SKIN	
NDS/NDSCh	POL	240					

4,4 Methylenebis (cyclohexylamine)

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,08	mg/l
Normal value in marine water	0,008	mg/l
Normal value for fresh water sediment	136,6	mg/kg
Normal value for marine water sediment	13,7	mg/kg
Normal value for marine water, intermittent release	0,08	mg/l
Normal value of STP microorganisms	3,2	mg/l
Normal value for the terrestrial compartment	27,2	mg/kg
Normal value for the atmosphere	NPI	

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				0,06 mg/kg bw/d				
Inhalation	LOW	LOW	LOW	0,21 mg/m3	HIGH	HIGH	HIGH	0,13 mg/m3
Skin	LOW	LOW	LOW	0,06 mg/kg bw/d	HIGH	HIGH	HIGH	0,053 mg/kg bw/d

Triethylenetetramine

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
NDS/NDSCh	POL	1		3		
TLV	ROU	10	1,7	20	3,3	

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	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 bw/d				
Inhalation		1600 mg/m3		0,29 mg/m3		5380 mg/m3		1 mg/m3
Skin	1 mg/cm2	8 mg/kg bw/d	0,43 mg/cm2	0,25 mg/kg bw/d			0,028 mg/cm2	0,57 mg/kg bw/d

SECTION 8. Exposure controls/personal protection ... / >>

2-piperazin-1-ylethylamine

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,058	mg/l
Normal value in marine water	0,0058	mg/l
Normal value for fresh water sediment	215	mg/kg
Normal value for marine water sediment	21,5	mg/kg
Normal value for marine water, intermittent release	0,58	mg/l
Normal value of STP microorganisms	250	mg/l
Normal value for the terrestrial compartment	1	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI		NPI				
Inhalation	NPI	NPI	NPI	NEA	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

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

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,00434	mg/l
Normal value in marine water	0,000434	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 marine water, intermittent release	0,0434	mg/l
Normal value of STP microorganisms	3,84	mg/l
Normal value for the terrestrial compartment	86,78	mg/kg
Normal value for the atmosphere	NPI	

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI		0,0972 mg/kg bw/d				
Inhalation		NPI		0,169 mg/m3		NPI		0,952 mg/m3
Skin	HIGH		HIGH	0,0972 mg/kg bw/d	HIGH	NPI	HIGH	0,272 mg/kg bw/d

FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,015	mg/l
Normal value in marine water	0,002	mg/l
Normal value for fresh water sediment	15	mg/kg/d
Normal value for marine water sediment	1,5	mg/kg/d
Normal value for marine water, intermittent release	0,15	mg/l
Normal value of STP microorganisms	1,9	mg/l
Normal value for the terrestrial compartment	1,8	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		HIGH		HIGH				
Inhalation	HIGH	HIGH	HIGH	HIGH	HIGH	2 mg/m3	HIGH	0,2 mg/m3
Skin	HIGH	HIGH	HIGH	HIGH	HIGH	6 mg/kg bw/d	HIGH	2 mg/kg bw/d

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

SECTION 8. Exposure controls/personal protection ... / >>

; 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.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
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, failure time and permeability.
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).
In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.
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.
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		paste	
Colour		grey	
Odour		amino	
Melting point / freezing point		not available	
Initial boiling point		not available	
Flammability		not available	
Lower explosive limit		not available	
Upper explosive limit		not available	
Flash point	>	60 °C	
Auto-ignition temperature		not available	
Decomposition temperature		not available	
pH		not available	
Kinematic viscosity		not available	
Solubility		not available	
Partition coefficient: n-octanol/water		not available	
Vapour pressure		not available	
Density and/or relative density		1,55 g/cm3	
Relative vapour density		not available	
Particle characteristics		not applicable	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

SECTION 9. Physical and chemical properties ... / >>

9.2.2. Other safety characteristics

Information not available

SECTION 10. Stability and reactivity

10.1. Reactivity

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

QUARTZ (granular)
Stable in normal conditions of use and storage.
PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.
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.

QUARTZ (granular)
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.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.
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

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.
BENZYL ALCOHOL
Incompatible with: sulphuric acid,oxidising substances,aluminium.

10.6. Hazardous decomposition products

PHOSPHORIC ACID
May develop: phosphoryl oxides.
FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED
Decomposition products nitrogen oxides, carbon monoxide, carbon dioxide.

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 1272/2008

Metabolism, 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

SECTION 11. Toxicological information ... / >>

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation - vapours) of the mixture:	> 20 mg/l
ATE (Oral) of the mixture:	334,49 mg/kg
ATE (Dermal) of the mixture:	>2000 mg/kg

QUARTZ (granular)

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

PHOSPHORIC ACID

LD50 (Dermal):	2740 mg/kg Rabbit
LD50 (Oral):	1530 mg/kg Rat
LC50 (Inhalation mists/powders):	> 0,85 mg/l/1h Rat

BENZYL ALCOHOL

LD50 (Dermal):	2000 mg/kg Rabbit
LD50 (Oral):	1230 mg/kg Rat
LC50 (Inhalation vapours):	> 4,1 mg/l/4h Rat
STA (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)

2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL

STA (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)

4,4 Methylenebis (cyclohexylamine)

LD50 (Dermal):	1390 mg/kg Rabbit
LD50 (Oral):	350 mg/kg Rat

C12-C16 Propoxylated ethoxylated alcohol

LD50 (Oral):	> 2000 mg/kg Rat

Triethylenetetramine

LD50 (Dermal):	1465,4 mg/kg Rabbit
LD50 (Oral):	1591,4 mg/kg Rat

2-piperazin-1-ylethylamine

LD50 (Dermal):	866 mg/kg Rabbit
LD50 (Oral):	2097 mg/kg Rat
STA (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)

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

LD50 (Dermal):	2000 mg/kg Rat
LD50 (Oral):	2000 mg/kg Rat

FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED

STA (Oral):	100 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)

FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED
Method: OECD 453
Reliability (Klimisch score): 1
Species: rat
Routes of exposure: oral
Results: LD50 > 50 - < 300 mg/kg

Method: Equivalent or similar to 40CFR Part 158 Series 81-2, EPA
Reliability (Klimisch score): 2
Species: rabbit
Routes of exposure: dermal
Results: LD50 > 1000 mg/kg

SKIN CORROSION / IRRITATION

SECTION 11. Toxicological information ... / >>

Corrosive for the skin

FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED
Method: U.S. Department of Transportation
Reliability (Klimisch score):2
Species: rabbit
Results: corrosive to skin, cat. 1C

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED
Based on the weight of evidence of available data determined by expert judgment, the substance is classified as corrosive to the eyes, cat.1.

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

Respiratory sensitization

FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED
Based on the weight of evidence of available data determined by expert judgment, the substance is classified as a skin sensitizer.

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED
Method: OECD 476 - in vitro test
Reliability (Klimisch score): 1
Species: S. typhimurium; E. coli
Results: negative with and without metabolic activation

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED
Based on available data, the substance does not have carcinogenic effects and is not classified under the CLP hazard class of carcinogenicity.

REPRODUCTIVE TOXICITY

Suspected of damaging fertility or the unborn child

Adverse effects on sexual function and fertility

FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED
Method: OECD 421
Reliability (Klimisch score):1
Species: rat
Routes of exposure: oral
Results: NOAEL > 280 mg/kg. No adverse effects

Adverse effects on development of the offspring

FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED
Method: OECD 414
Reliability (Klimisch score):1
Species: rat
Routes of exposure: oral
Results: NOAEL > 280 mg/kg. No adverse effects

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

SECTION 11. Toxicological information ... / >>

FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED
Based on available data, the substance does not present specific target organ toxicity effects for single exposure and is not classified under the relevant CLP hazard class.

STOT - REPEATED EXPOSURE

May cause damage to organs

FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED
Method: OECD 407
Reliability (Klimisch score): 1
Species: rat
Routes of exposure: oral
Results: Treatment-related effects observed at the high and intermediate dose groups, particularly in the kidney, were considered adverse and represent the potential of the test substance to cause serious harm to health.
NOAEL = 15 mg/kg

Target organs

FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED
kidney

Route of exposure

FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED
Oral

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED
There are no data available on the danger in case of aspiration.

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

4,4 Methylenebis (cyclohexylamine)
Repeated dose toxicity:
Oral:
NOAEL: 2.5 - 50 mg/kg bw/day (Rat)

Triethylenetetramine
Repeated dose toxicity:
Oral:
NOAEL: 50 mg/kg bw/day (rat)
LOAEL: 50 mg/kg bw/day (rat)

2-piperazin-1-ylethylamine
Repeated dose toxicity:
Oral:
NOAEL: 2000 mg/L drinking water (Rat)
Inhalation:
NOEC: 0.2 - 53.5 mg/L air (Rat)
Cutaneous:
NOEL: 1000 mg/kg bw/day (Rat)

Fatty acids, C18-unsaturated, dimers, oligomeric reaction products with tall oil fatty acids and triethylenetetramine
Repeated dose toxicity:
Oral:
NOAEL: 1 000 mg/kg bw/day (rat)

SECTION 12. Ecological information

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

12.1. Toxicity

SECTION 12. Ecological information ... / >>

4,4 Methylenebis (cyclohexylamine)

LC50 - for Fish	68 mg/l/96h
EC50 - for Crustacea	6,84 mg/l/48h
EC50 - for Algae / Aquatic Plants	140 mg/l/72h
EC10 for Algae / Aquatic Plants	35,36 mg/l/72h
Chronic NOEC for Fish	1 mg/l (14 days)
Chronic NOEC for Crustacea	4 mg/l (21 days)

C12-C16 Propoxylated ethoxylated alcohol

LC50 - for Fish	> 0,1 mg/l/96h
EC50 - for Crustacea	> 1 mg/l/48h

Triethylenetetramine

LC50 - for Fish	330 mg/l/96h
EC50 - for Crustacea	31,1 mg/l/48h
EC50 - for Algae / Aquatic Plants	20 mg/l/72h

2-piperazin-1-ylethylamine

LC50 - for Fish	2190 mg/l/96h
EC50 - for Crustacea	58 mg/l/48h
EC50 - for Algae / Aquatic Plants	1000 mg/l/72h
Chronic NOEC for Fish	1030 mg/l
Chronic NOEC for Crustacea	10 mg/l (48h)

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

LC50 - for Fish	7,07 mg/l/96h
EC50 - for Crustacea	7,07 mg/l/48h
EC50 - for Algae / Aquatic Plants	4,34 mg/l/72h
Chronic NOEC for Fish	5 mg/l (96h)
Chronic NOEC for Algae / Aquatic Plants	0,5 mg/l (72h)

FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED

LC50 - for Fish	63 mg/l/96h Poecilia reticulata (OECD 203)
EC50 - for Crustacea	15,4 mg/l/48h Daphnia magna (OECD 202)
EC50 - for Algae / Aquatic Plants	43,94 mg/l/72h Desmodesmus subspicatus (EU C.3)
EC10 for Algae / Aquatic Plants	1,2 mg/l/72h Desmodesmus subspicatus (EU C.3)

12.2. Persistence and degradability

PHOSPHORIC ACID

Solubility in water	> 850000 mg/l

Degradability: information not available

BENZYL ALCOHOL
Rapidly degradable

2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL

Solubility in water	> 10000 mg/l

NOT rapidly degradable

C12-C16 Propoxylated ethoxylated alcohol
Rapidly degradable

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

Entirely degradable	In water (not fulfilling specific criteria)

FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED

NOT rapidly degradable	0% in 28d (Japanese Industrial Standard.)

12.3. Bioaccumulative potential

BENZYL ALCOHOL

Partition coefficient: n-octanol/water	1,1

2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL

Partition coefficient: n-octanol/water	-0,66

SECTION 12. Ecological information ... / >>

Triethylenetetramine
Partition coefficient: n-octanol/water -2,65 Log Kow

FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED
Partition coefficient: n-octanol/water 2,68 Log Kow T = 21 °C; pH = 12,5 (EU A.8)

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 ≥ than 0,1%.

12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. Other adverse effects

Information not available

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.
IMDG: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S.
IATA: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S.

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

SECTION 14. Transport information ... / >>

14.5. Environmental hazards

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 80 Special provision: 274	Limited Quantities: 1 L	Tunnel restriction code: (E)
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: None

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

Product

Point 3

Contained substance

Point 75

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors
not applicable

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage ≥ than 0,1%.

Substances subject to authorisation (Annex XIV REACH)
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:

Met. Corr. 1	Substance or mixture corrosive to metals, category 1
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
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1B	Skin corrosion, category 1B

SECTION 16. Other information ... / >>

Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
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 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H290	May be corrosive to metals.
H361	Suspected of damaging fertility or the unborn child.
H301	Toxic if swallowed.
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.
H373	May cause 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.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

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

SECTION 16. Other information ... / >>

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
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11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
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13. Regulation (EU) 2017/776 (X Atp. CLP)
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15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
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23. Delegated Regulation (UE) 2023/707

- 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.