

Safety Data Sheet

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

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

1.1. Product identifier

Code: **0470210P**
Product name: **SYNTECH PRIMER EP-W COMP.B**
UFI: **9CJ1-W03M-T00T-2366**

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

Intended use: **Two-component epoxy binder**

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:

Acute toxicity, category 3	H301	Toxic if swallowed.
Acute toxicity, category 3	H311	Toxic in contact with skin.
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 1	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:

H301+H311	Toxic if swallowed or in contact with skin.
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: FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED
N,N'-BIS(3-AMINOPROPYL)ETHYLENEDIAMINE
N-(2-AMINOETHYL)-1,3-PROPANDIAMINE
BENZYL ALCOHOL

2.3. Other hazards

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

The product does not contain substances with endocrine disrupting properties in concentration $\geq$ 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	Acute Tox. 4 H302, Acute Tox. 4 H332 LD50 Oral: 1230 mg/kg, ATE Inhalation vapours: 11 mg/l
EC	202-859-9	
CAS	100-51-6	
FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED		
INDEX	35 ≤ x < 37,5	Acute Tox. 3 H301, STOT RE 2 H373, Skin Corr. 1C H314, Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 3 H412 ATE Oral: 100 mg/kg
EC	603-894-6	
CAS	135108-88-2	
REACH Reg.	01-2119983522-33-XXXX	
2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL		
INDEX	603-069-00-0	Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315 ATE Oral: 500 mg/kg
EC	202-013-9	
CAS	90-72-2	

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

N,N'-BIS(3-AMINOPROPYL)ETHYLENEDIAMINE

INDEX $8,5 \leq x < 10,005$

EC 234-147-9

CAS 10563-26-5

REACH Reg. 01-2119976331-37-XXXX

N-(2-AMINOETHYL)-1,3-PROPANDIAMINE

INDEX $0,708 \leq x < 0,808$

EC 236-882-0

CAS 13531-52-7

REACH Reg. 01-2120097861-45-xxxx

Acute Tox. 3 H311, Acute Tox. 4 H302, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1A H317

LD50 Oral: 1140 mg/kg, LD50 Dermal: >200 mg/kg

Acute Tox. 1 H310, Acute Tox. 4 H302, Skin Corr. 1A H314, Eye Dam. 1 H318, Skin Sens. 1A H317, Aquatic Chronic 3 H412

LD50 Oral: 654 mg/kg, ATE Dermal: 5 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

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.

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

Immediately call a POISON CENTER / 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

Do not breathe combustion products.

SECTION 5. Firefighting measures ... / >>

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.28 от 2 Април 2024г.)
DEU	Deutschland	WirkungDosisNOAELMAK-und BAT-Werte-Liste 2024 Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe
POL	Polska	ROZPORZĄDZENIE MINISTRA RODZINY, PRACY I POLITYKI SPOŁECZNEJ z dnia 24 czerwca 2024 r. zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy

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

BENZYL ALCOHOL

Threshold Limit Value

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

N,N'-BIS(3-AMINOPROPYL)ETHYLENEDIAMINE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,144	mg/l
Normal value in marine water	0,14	mg/l
Normal value for fresh water sediment	45,3	mg/kg/d
Normal value for marine water sediment	4,53	mg/kg/d
Normal value for marine water, intermittent release	0,43	mg/l
Normal value of STP microorganisms	3,4	mg/l
Normal value for the terrestrial compartment	8,96	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				0,125 mg/kg bw/d				
Inhalation				0,217 mg/m3				1,234 mg/m3
Skin	HIGH	MED	HIGH	0,125 mg/kg bw/d	HIGH	MED	HIGH	0,35 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

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		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

N-(2-AMINOETHYL)-1,3-PROPANDIAMINE

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				0,063 mg/kg bw/d				
Inhalation				0,094 mg/m3				0,62 mg/m3
Skin	HIGH		HIGH	0,063 mg/kg bw/d	HIGH		HIGH	0,18 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, 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 III 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	liquid	
Colour	orange	
Odour	characteristic	
Melting point / freezing point	not available	
Initial boiling point	> 200 °C	
Flammability	not available	
Lower explosive limit	not available	
Upper explosive limit	not available	
Flash point	93 °C	
Auto-ignition temperature	not available	
Decomposition temperature	not available	
pH	not available	
Kinematic viscosity	20,5	Temperature: 40 °C
Solubility	insoluble in water	
Partition coefficient: n-octanol/water	not available	
Vapour pressure	not available	
Density and/or relative density	1,07 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

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

Information not available

9.2.2. Other safety characteristics

VOC (Directive 2010/75/EU)	54,60 %	-	584,22	g/litre
VOC (volatile carbon)	41,47 %	-	443,68	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.

N,N'-BIS(3-AMINOPROPYL)ETHYLENEDIAMINE

Strong exothermic reaction with acids.

N-(2-AMINOETHYL)-1,3-PROPANDIAMINE

Strong exothermic reaction with acids.

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.

N,N'-BIS(3-AMINOPROPYL)ETHYLENEDIAMINE

Avoid all sources of ignition: heat, sparks, open flames.

N-(2-AMINOETHYL)-1,3-PROPANDIAMINE

Avoid all sources of ignition: heat, sparks, open flames.

10.5. Incompatible materials

BENZYL ALCOHOL

Incompatible with: sulphuric acid, oxidising substances, aluminium.

N,N'-BIS(3-AMINOPROPYL)ETHYLENEDIAMINE

Acids, nitrosating agents

N-(2-AMINOETHYL)-1,3-PROPANDIAMINE

Acids, nitrosating agents

10.6. Hazardous decomposition products

FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED

Decomposition products nitrogen oxides, carbon monoxide, carbon dioxide.

N-(2-AMINOETHYL)-1,3-PROPANDIAMINE

Carbon monoxide, carbon dioxide, nitrogen oxide

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

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation - vapours) of the mixture:	> 20 mg/l
ATE (Oral) of the mixture:	226,04 mg/kg
ATE (Dermal) of the mixture:	472,59 mg/kg

BENZYL ALCOHOL

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

FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED

ATE (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)
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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

2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL

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)
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N,N'-BIS(3-AMINOPROPYL)ETHYLENEDIAMINE

LD50 (Dermal):	> 200 mg/kg Rabbit (OECD 402)
LD50 (Oral):	1140 mg/kg Rat (report di studio, 1977)
Method:	study report, 1977
Reliability (Klimisch score):	2
Species:	rat (Sprague-Dawley; male/female)
Routes of exposure:	oral
Results:	LD50 = 1140 mg/kg body weight

SECTION 11. Toxicological information ... / >>

Based on the weight of evidence of available data determined by expert judgment, the substance is not classified for the hazard class of acute inhalation toxicity.

Method: OECD 402

Reliability (Klimisch score): 1

Species: rabbit (New Zealand White; male/female)

Routes of exposure: skin

Results: LD50 > 200 mg/kg body weight

N-(2-AMINOETHYL)-1,3-PROPANDIAMINE

LD50 (Dermal):

ATE (Dermal):

184 mg/kg Rabbit (equivalente o similare a OECD 402)

5 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)

654 mg/kg Rat (equivalente o similare a OECD 401)

LD50 (Oral):

Method: equivalent or similar to OECD 401

Reliability (Klimisch score): 2

Species: rat (Sprague-Dawley; male/female)

Routes of exposure: oral

Results: LD50 = 654 mg/kg body weight

Method: equivalent or similar to OECD 402

Reliability (Klimisch score): 2

Species: rabbit (Vienna White; male/female)

Routes of exposure: dermal

Results: LD50 = 184 mg/kg body weight

SKIN CORROSION / IRRITATION

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

N,N'-BIS(3-AMINOPROPYL)ETHYLENEDIAMINE

Method: equivalent or similar to OECD 404

Reliability (Klimisch score): 2

Species: rabbit (Vienna White)

Routes of exposure: dermal

Results: corrosive

N-(2-AMINOETHYL)-1,3-PROPANDIAMINE

Method: equivalent or similar to OECD 404

Reliability (Klimisch score): 2

Species: rabbit (Vienna White)

Routes of exposure: dermal

Results: corrosive

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.

N,N'-BIS(3-AMINOPROPYL)ETHYLENEDIAMINE

Method: equivalent or similar to OECD 405

Reliability (Klimisch score): 2

Species: rabbit (Vienna White)

Routes of exposure: ocular

Results: corrosive

SECTION 11. Toxicological information ... / >>

N-(2-AMINOETHYL)-1,3-PROPANDIAMINE

Method: equivalent or similar to OECD 405

Reliability (Klimisch score): 2

Species: rabbit (New Zealand White)

Routes of exposure: ocular

Results: corrosive

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

N-(2-AMINOETHYL)-1,3-PROPANDIAMINE

Based on the weight of evidence of available data, the substance is classified as skin sensitizing.

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.

Skin sensitization

N,N'-BIS(3-AMINOPROPYL)ETHYLENEDIAMINE

Method: OECD 406

Reliability (Klimisch score): 1

Species: Guinea pig (Dunkin-Hartley; female)

Routes of exposure: skin

Results: sensitizing

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

N,N'-BIS(3-AMINOPROPYL)ETHYLENEDIAMINE

Method: OECD 471 - In vitro test

Reliability (Klimisch score): 1

Species: S. typhimurium, E. coli

Results: negative with and without metabolic activation

N-(2-AMINOETHYL)-1,3-PROPANDIAMINE

Method: OECD 471 - In vitro test

Reliability (Klimisch score): 2

Species: S. typhimurium

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.

N,N'-BIS(3-AMINOPROPYL)ETHYLENEDIAMINE

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

N-(2-AMINOETHYL)-1,3-PROPANDIAMINE

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

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

SECTION 11. Toxicological information ... / >>**N-(2-AMINOETHYL)-1,3-PROPANDIAMINE**

Based on available data, the substance does not present reproductive toxicity effects and is not classified under the relevant CLP hazard class.

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

N,N'-BIS(3-AMINOPROPYL)ETHYLENEDIAMINE

Method: OECD 422

Reliability (Klimisch score): 1

Species: rat (Wistar; male/female)

Routes of exposure: oral

Results: negative. NOAEL (P0) = 100 mg/kg body weight/day; NOAEL (F1) = 300 mg/kg body weight/day

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

N,N'-BIS(3-AMINOPROPYL)ETHYLENEDIAMINE

Method: OECD 422

Reliability (Klimisch score): 1

Species: rat (Wistar)

Routes of exposure: oral

Results: negative. NOAEL (maternal) = 30 mg/kg body weight/day; NOAEL (development) = 100 mg/kg body weight/day; NOAEL (fetus) > 300 mg/kg body weight/day

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

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.

N,N'-BIS(3-AMINOPROPYL)ETHYLENEDIAMINE

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.

N-(2-AMINOETHYL)-1,3-PROPANDIAMINE

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

N,N'-BIS(3-AMINOPROPYL)ETHYLENEDIAMINE

Method: OECD 422

Reliability (Klimisch score): 1

Species: rat (Wistar; male/female)

SECTION 11. Toxicological information ... / >>

Routes of exposure: oral
Results: negative. NOAEL = 30 mg/kg body weight/day

N-(2-AMINOETHYL)-1,3-PROPANDIAMINE

Based on available data, the substance does not present specific target organ toxicity effects upon repeated exposure and is not classified under the relevant CLP hazard class.

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.

N,N'-BIS(3-AMINOPROPYL)ETHYLENEDIAMINE
There are no data available on the danger in case of aspiration.

N-(2-AMINOETHYL)-1,3-PROPANDIAMINE
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.

SECTION 12. Ecological information

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

12.1. Toxicity**FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED**

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

N,N'-BIS(3-AMINOPROPYL)ETHYLENEDIAMINE

EC50 - for Crustacea	45,54 mg/l/48h <i>Daphnia magna</i> (EU C.2)
EC50 - for Algae / Aquatic Plants	> 100 mg/l/72h <i>Desmodesmus subspicatus</i> (OECD 201)
Chronic NOEC for Crustacea	7,2 mg/l/21d <i>Daphnia magna</i> (OECD 211)
Chronic NOEC for Algae / Aquatic Plants	50 mg/l/72h <i>Desmodesmus subspicatus</i> (OECD 201)
LD50 - Fish > 220 - < 460 mg/l, <i>Leuciscus idus</i> (DIN 38412, part 15)	

N-(2-AMINOETHYL)-1,3-PROPANDIAMINE

LC50 - for Fish	> 1000 mg/l/96h <i>Leuciscus idus</i> (DIN 38 412, part L15)
EC50 - for Crustacea	25,93 mg/l/48h <i>Daphnia magna</i> (DIN 38412, part 11)
EC50 - for Algae / Aquatic Plants	460,2 mg/l/72h <i>Desmodesmus subspicatus</i> (OECD 201)

12.2. Persistence and degradability

BENZYL ALCOHOL
Rapidly degradable

SECTION 12. Ecological information ... / >>

FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED
NOT rapidly degradable 0% in 28d (Japanese Industrial Standard.)

2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL
Solubility in water > 10000 mg/l
NOT rapidly degradable

N,N'-BIS(3-AMINOPROPYL)ETHYLENEDIAMINE
Rapidly degradable 70 % in 28 giorni (OECD 301 B)

N-(2-AMINOETHYL)-1,3-PROPANDIAMINE
Rapidly degradable 15% in 28 giorni (OECD 301B)

12.3. Bioaccumulative potential

BENZYL ALCOHOL
Partition coefficient: n-octanol/water 1,1

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

2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL
Partition coefficient: n-octanol/water -0,66

N,N'-BIS(3-AMINOPROPYL)ETHYLENEDIAMINE
Partition coefficient: n-octanol/water -1,55 Log Kow T = 23 °C, pH = 11,4 (equivalente o similare a OECD 107)

N-(2-AMINOETHYL)-1,3-PROPANDIAMINE
Partition coefficient: n-octanol/water -1,67 Log Kow T = 23 °C, pH = 10,9 (OECD 107)

12.4. Mobility in soil

N,N'-BIS(3-AMINOPROPYL)ETHYLENEDIAMINE
Partition coefficient: soil/water 3,2 T = 22 °C (equivalente o similare a OECD 106)

N-(2-AMINOETHYL)-1,3-PROPANDIAMINE
Partition coefficient: soil/water 0,96 T = 25 °C, pH = 5 - 8 (Environ Toxicol Chem 28: 458-464)

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 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.

The management of waste arising from the use or dispersal of this product must be organised in accordance with occupational safety regulations. See section 8 for possible need for PPE.

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.
(N,N'-BIS(3-AMINOPROPYL)ETHYLENEDIAMINE; FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED)

IMDG: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S.
(N,N'-BIS(3-AMINOPROPYL)ETHYLENEDIAMINE; FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED)

IATA: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S.
(N,N'-BIS(3-AMINOPROPYL)ETHYLENEDIAMINE; FORMALDEHYDE, POLYMER WITH BENZENAMINE, HYDROGENATED)

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: NO
IMDG: not marine pollutant
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: Passengers: Special provision:	Maximum quantity: 30 L Maximum quantity: 1 L A3, A803	Packaging instructions: 855 Packaging instructions: 851

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

SECTION 15. Regulatory information ... / >>

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 $\geq$ 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:

Acute Tox. 1	Acute toxicity, category 1
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1A	Skin corrosion, category 1A
Skin Corr. 1B	Skin corrosion, category 1B
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
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H310	Fatal in contact with skin.
H301+H311	Toxic if swallowed or in contact with skin.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H332	Harmful if inhaled.
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.
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

SECTION 16. Other information ... / >>

- 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)
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)
25. Delegated Regulation (UE) 2023/1435 (XX Atp. CLP)
26. Delegated Regulation (UE) 2024/197 (XXI Atp. CLP)
27. Delegated Regulation (UE) 2024/2564 (XXII 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.

SECTION 16. Other information ... / >>**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.

Changes to previous review:

The following sections were modified:

01.