

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: 0470264P
Product name: SYNTECH PAVISTRONG COMP.A
UFI: 17S0-P052-R00R-65F2

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

Intended use: Two-component chemical-resistant epoxy coating

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:

Eye irritation, category 2	H319	Causes serious eye irritation.
Skin irritation, category 2	H315	Causes skin irritation.
Skin sensitization, category 1	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:



SECTION 2. Hazards identification ... / >>

Signal words: Warning

Hazard statements:

H319 Causes serious eye irritation.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.
EUH205 Contains epoxy constituents. May produce an allergic reaction.

Precautionary statements:

P280 Wear protective gloves / eye protection / face protection.
P273 Avoid release to the environment.
P391 Collect spillage.
P261 Avoid breathing dust / fume / gas / mist / vapours / spray.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.

Contains: 2,2-BIS-[4-(2,3-EPOXYPROPOSY)PHENYL]-PROPANE
1,4-BIS-(2,3-EPOXYPROPOSY)-BUTANE

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)
2,2-BIS-[4-(2,3-EPOXYPROPOSY)PHENYL]-PROPANE		
INDEX 603-073-00-2	$37,5 \leq x < 40$	Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411
EC 216-823-5		
CAS 1675-54-3		
REACH Reg. 01-2119456619-26-xxxx		
1,4-BIS-(2,3-EPOXYPROPOSY)-BUTANE		
INDEX 603-072-00-7	$13,5 \leq x < 15$	Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317
EC 219-371-7		ATE Oral: 500 mg/kg, ATE Dermal: 1100 mg/kg, ATE Inhalation mists/powders: 1,5 mg/l, ATE Inhalation vapours: 11 mg/l
CAS 2425-79-8		
REACH Reg. 01-2119494060-45-XXXX		

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. 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

SECTION 4. First aid measures ... / >>

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

If skin irritation or rash occurs: Get medical advice / attention.

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.

2,2-BIS-[4-(2,3-EPOXYPROPOXY)PHENYL]-PROPANE

Phenolic compounds. Carbon monoxide. Carbon dioxide.

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.

SECTION 6. Accidental release measures ... / >>

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

2,2-BIS-[4-(2,3-EPOXYPROPOSY)PHENYL]-PROPANE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,006	mg/l
Normal value in marine water	0,001	mg/l
Normal value for fresh water sediment	0,341	mg/kg/d
Normal value for marine water sediment	0,034	mg/kg/d
Normal value for marine water, intermittent release	0,018	mg/l
Normal value for fresh water, intermittent release	0,002	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	11	mg/kg
Normal value for the terrestrial compartment	0,065	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers		Chronic local	Chronic systemic	Effects on workers			
	Acute local	Acute systemic			Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				0,5 mg/kg bw/d				
Inhalation				0,87 mg/m3				4,93 mg/m3
Skin				0,0893 mg/kg bw/d				0,75 mg/kg bw/d

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

1,4-BIS-(2,3-EPOXYPROPOSY)-BUTANE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,024	mg/l
Normal value in marine water	0,002	mg/l
Normal value for fresh water sediment	0,084	mg/kg/d
Normal value for marine water sediment	0,008	mg/kg/d
Normal value for marine water, intermittent release	0,24	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the food chain (secondary poisoning)	0,028	mg/kg
Normal value for the terrestrial compartment	0,003	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	Chronic	Acute	Chronic				
Oral								
	local	systemic	local	systemic				
Oral		HIGH		0,33 mg/kg bw/d				
Inhalation	HIGH	HIGH	HIGH	1,16 mg/m3	HIGH	HIGH	HIGH	4,7 mg/m3
Skin	HIGH	HIGH	HIGH	3,33 mg/kg bw/d	HIGH	HIGH	HIGH	6,66 mg/kg bw/d

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.

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	various	
Odour	characteristic	
Melting point / freezing point	not available	
Initial boiling point	> 150 °C	
Flammability	not available	
Lower explosive limit	not available	
Upper explosive limit	not available	
Flash point	100	

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

	>	°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	2	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

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.

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.

10.4. Conditions to avoid

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

10.5. Incompatible materials

2,2-BIS-[4-(2,3-EPOXYPROPOSY)PHENYL]-PROPANE

Oxidizing materials, acids, bases and amines.

1,4-BIS-(2,3-EPOXYPROPOSY)-BUTANE

Acids, alcohols, amines, ammonia, bases, strong oxidants. Avoid inadvertent contact with amines.

10.6. Hazardous decomposition products

2,2-BIS-[4-(2,3-EPOXYPROPOSY)PHENYL]-PROPANE

The uncontrolled exothermic reaction of epoxy resins releases phenols, carbon monoxide and water.

1,4-BIS-(2,3-EPOXYPROPOSY)-BUTANE

The uncontrolled exothermic reaction of epoxy resins releases phenols, carbon monoxide and water.

SECTION 11. Toxicological information

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

Metabolism, toxicokinetics, mechanism of action and other information

SECTION 11. Toxicological 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 - 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

2,2-BIS-[4-(2,3-EPOXYPROPOSY)PHENYL]-PROPANE

Method: OECD 420

Reliability (Klimisch score): 1

Species: rat (Wistar, female)

Routes of exposure: oral

Results: LD50 >2000 mg/kg

Method: OECD 402

Reliability (Klimisch score): 1

Species: rat (Wistar, male/female)

Routes of exposure: dermal

Results: LD50 >2000 mg/kg

1,4-BIS-(2,3-EPOXYPROPOSY)-BUTANE

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)

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)

ATE (Inhalation mists/powders): 1,5 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)

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)

Method: OECD 401

Reliability (Klimisch score): 1

Species: rat (KFM-Han. Wistar; male/female)

Routes of exposure: oral

Results: LD50 (male) = 1118 mg/kg body weight; LD50 (female) = 1293 mg/kg body weight

Based on the weight of evidence of available data determined by expert judgment, the substance is classified for the hazard class of acute inhalation and dermal toxicity. (Harmonized classification, Annex VI, Regulation 1272/2008)

SKIN CORROSION / IRRITATION

Causes skin irritation

2,2-BIS-[4-(2,3-EPOXYPROPOSY)PHENYL]-PROPANE

Method: OECD 404

Reliability (Klimisch score): 1

Species: rabbit (New Zealand White)

Routes of exposure: dermal

Results: skin irritant

SECTION 11. Toxicological information ... / >>**1,4-BIS-(2,3-EPOXYPROPOSY)-BUTANE**

Based on the weight of evidence of available data, the substance is classified as a skin irritant. (Harmonized classification, Annex VI, Regulation 1272/2008)

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

2,2-BIS-[4-(2,3-EPOXYPROPOSY)PHENYL]-PROPANE

Based on the weight of evidence of available data, the substance is classified as an eye irritant

1,4-BIS-(2,3-EPOXYPROPOSY)-BUTANE

Based on the weight of evidence of available data, the substance is classified as an eye irritant. (Harmonized classification, Annex VI, Regulation 1272/2008)

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

2,2-BIS-[4-(2,3-EPOXYPROPOSY)PHENYL]-PROPANE

Method: OECD 429

Reliability (Klimisch score): 1

Species: mouse (CBA/J, female)

Routes of exposure: dermal

Results: skin sensitizer

Skin sensitization**1,4-BIS-(2,3-EPOXYPROPOSY)-BUTANE**

Method: OECD 406

Reliability (Klimisch score): 1

Species: Guinea pig (Ibm: GOHI SPF; female)

Routes of exposure: dermal

Results: non-sensitizing (Harmonized classification, Annex VI, Regulation 1272/2008)

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

2,2-BIS-[4-(2,3-EPOXYPROPOSY)PHENYL]-PROPANE

Method: OECD 472 - In vitro test

Reliability (Klimisch score): 1

Species: E. coli, S. typhimurium

Results: negative with and without metabolic activation

Method: OECD 488

Reliability (Klimisch score): 1

Species: Rat (F344 Big Blue, male)

Routes of exposure: oral

Results: negative

1,4-BIS-(2,3-EPOXYPROPOSY)-BUTANE

Method: OECD 406

Reliability (Klimisch score): 1

Species: Guinea pig (Ibm: GOHI SPF; female)

Routes of exposure: dermal

Results: non-sensitizing (Harmonized classification, Annex VI, Regulation 1272/2008)

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

2,2-BIS-[4-(2,3-EPOXYPROPOSY)PHENYL]-PROPANE

Method: OECD 453

Reliability (Klimisch score): 1

Species: rat (Fischer 344, male/female)

Routes of exposure: oral

Results: negative

SECTION 11. Toxicological information ... / >>**1,4-BIS-(2,3-EPOXYPROPOSY)-BUTANE**

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

2,2-BIS-[4-(2,3-EPOXYPROPOSY)PHENYL]-PROPANE

Method: OECD 416

Reliability (Klimisch score): 1

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

Routes of exposure: oral

Results: negative, NOEL (adult males) = 50 mg/kg/day, NOEL (adult females) = 540 mg/kg/day, NOEL (reproductive effects) = 750 mg/kg/day

Adverse effects on development of the offspring**1,4-BIS-(2,3-EPOXYPROPOSY)-BUTANE**

Method: OECD 414

Reliability (Klimisch score): 1

Species: rat (Sprague-Dawley)

Routes of exposure: oral

Results: negative. NOAEL (maternal) = 300 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

2,2-BIS-[4-(2,3-EPOXYPROPOSY)PHENYL]-PROPANE

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.

1,4-BIS-(2,3-EPOXYPROPOSY)-BUTANE

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

Does not meet the classification criteria for this hazard class

2,2-BIS-[4-(2,3-EPOXYPROPOSY)PHENYL]-PROPANE

Method: OECD 408

Reliability (Klimisch score): 1

Species: rat (Fischer 344, male/female)

Routes of exposure: oral

Results: negative, NOAEL 50 mg/kg/day

Method: OECD 411

Reliability (Klimisch score): 1

Species: mouse (B6C3F1, male)

Routes of exposure: dermal

Results: negative, NOAEL 100 mg/kg/day

1,4-BIS-(2,3-EPOXYPROPOSY)-BUTANE

Method: OECD 407

Reliability (Klimisch score): 1

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

Routes of exposure: oral

Results: negative. NOAEL = 200 mg/kg body weight/day

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

2,2-BIS-[4-(2,3-EPOXYPROPOSY)PHENYL]-PROPANE

There are no data available on the danger in case of aspiration.

1,4-BIS-(2,3-EPOXYPROPOSY)-BUTANE

There are no data available on the danger in case of aspiration.

SECTION 11. Toxicological information ... / >>

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

12.1. Toxicity

2,2-BIS-[4-(2,3-EPOXYPROPOSY)PHENYL]-PROPANE	
LC50 - for Fish	1,75 mg/l/96h Oncorhynchus mykiss (OECD 203)
EC50 - for Crustacea	1,1 mg/l/48h Daphnia magna (equivalente o similare a OECD 202)
EC50 - for Algae / Aquatic Plants	9,4 mg/l/72h Scenedesmus capricornutum (equ. e sim. EPA-660/3-75-009)
Chronic NOEC for Crustacea	0,3 mg/l/21d Daphnia magna (equivalente o similare a OECD 211)
Chronic NOEC for Algae / Aquatic Plants	2,4 mg/l/72h Scenedesmus capricornutum (equivalente o similare a EPA-660/3-75-009)
1,4-BIS-(2,3-EPOXYPROPOSY)-BUTANE	
LC50 - for Fish	24 mg/l/96h Danio rerio (OECD 203)
EC50 - for Algae / Aquatic Plants	> 160 mg/l/72h Raphidocelis subcapitata (OECD 201)
EC50 - Crustaceans: 75 mg/l, Daphnia magna (OECD 202)	

12.2. Persistence and degradability

2,2-BIS-[4-(2,3-EPOXYPROPOSY)PHENYL]-PROPANE	
NOT rapidly degradable	5% in 28 giorni (OECD 301 F)
1,4-BIS-(2,3-EPOXYPROPOSY)-BUTANE	
NOT rapidly degradable	38% in 28 giorni (OECD 301 E)

12.3. Bioaccumulative potential

1,4-BIS-(2,3-EPOXYPROPOSY)-BUTANE	
Partition coefficient: n-octanol/water	-0,269 Log Kow T = 25 °C, pH = 6,7 (OECD 117)

12.4. Mobility in soil

1,4-BIS-(2,3-EPOXYPROPOSY)-BUTANE	
Partition coefficient: soil/water	1,1 (OECD 121)

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

SECTION 13. Disposal considerations ... / >>

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 3082

ADR / RID: In accordance with Special Provision 375, this product, when is packed in receptacles of a capacity $\leq$ 5Kg or 5L, is not submitted to ADR provisions.

IMDG: In accordance with Section 2.10.2.7 of IMDG Code, this product, when is packed in receptacles of a capacity $\leq$ 5Kg or 5L, is not submitted to IMDG Code provisions.

IATA: In accordance with SP A197, this product, when is packed in receptacles of a capacity $\leq$ 5Kg or 5L, is not submitted to IATA dangerous goods regulations.

14.2. UN proper shipping name

ADR / RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(2,2-BIS-[4-(2,3-EPOXYPROPOSY)PHENYL]-PROPANE)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(2,2-BIS-[4-(2,3-EPOXYPROPOSY)PHENYL]-PROPANE)

IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(2,2-BIS-[4-(2,3-EPOXYPROPOSY)PHENYL]-PROPANE)

14.3. Transport hazard class(es)

ADR / RID: Class: 9 Label: 9



IMDG: Class: 9 Label: 9



IATA: Class: 9 Label: 9



14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous



IMDG: Marine Pollutant



IATA: Environmentally Hazardous



14.6. Special precautions for user

ADR / RID: HIN - Kemler: 90 Limited Quantities: 5 L
Special provision: 274, 335, 375, 601

Tunnel restriction code: (-)

IMDG: EMS: F-A, S-F Limited Quantities: 5 L
IATA: Cargo: Maximum quantity: 450 L
Passengers: Maximum quantity: 450 L
Special provision: A97, A158, A197, A215

Packaging instructions: 964
Packaging instructions: 964

SECTION 14. Transport information ... / >>

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 1907/2006

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 $\geq$ 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. 4	Acute toxicity, category 4
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
EUH205	Contains epoxy constituents. May produce an allergic reaction.

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

SECTION 16. Other information ... / >>

- 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)
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.

SECTION 16. Other information ... / >>

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.

Changes to previous review:

The following sections were modified:

04 / 09 / 11 / 12 / 13 / 14.