

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: **0470310P**
Product name: **SYNTECH GROUT EP COMP.A**
UFI: **XN11-80SY-S007-1MJD**

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

Intended use: **Two-component pourable epoxy mortar for repairs and anchoring**

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 1B	H360F	May damage fertility.
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: Danger

Hazard statements:

H360F May damage fertility.
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.

Precautionary statements:

P201 Obtain special instructions before use.
P280 Wear protective gloves/ protective clothing / eye protection / face protection.
P308+P313 IF exposed or concerned: Get medical advice / attention.
P273 Avoid release to the environment.
P391 Collect spillage.
P261 Avoid breathing dust / fume / gas / mist / vapours / spray.

Contains: OXYRANE, MONO[(C12-14 -ALKYLOXY)METHYL] DERIVATIVES
FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PENOL
2,2-BIS-[4-(2,3-EPOXYPROPOSY)PHENYL]-PROPANE
MALEIC ANHYDRIDE
Oxirane, (chloromethyl)-, polymer with .alpha.-hydro-.omega.-hydroxypoly(oxy(methyl-1,2-ethanediyl))
Fatty acids, -C14-18-and-C16-18-unsaturated, -2-phenoxyethyl esters, maleates
4-morpholinecarbaldehyde

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	$25 \leq x < 26,5$	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		
FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PENOL		
INDEX	$10,5 \leq x < 12$	Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411
EC 500-006-8		
CAS 9003-36-5		
REACH Reg. 01-2119454392-40-XXXX		
OXYRANE, MONO[(C12-14 -ALKYLOXY)METHYL] DERIVATIVES		
INDEX 603-103-00-4	$5 \leq x < 6$	Repr. 1B H360F, Skin Irrit. 2 H315, Skin Sens. 1 H317
EC 271-846-8		
CAS 68609-97-2		
REACH Reg. 01-21194852289-22-xxxx		
Oxirane, (chloromethyl)-, polymer with .alpha.-hydro-.omega.-hydroxypoly(oxy(methyl-1,2-ethanediyl))		
INDEX	$1,5 \leq x < 2$	Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1B H317, Aquatic Chronic 3 H412
EC 618-635-2		
CAS 9072-62-2		
4-morpholinecarbaldehyde		
INDEX	$0,2 \leq x < 0,25$	Skin Sens. 1B H317
EC 224-518-3		
CAS 4394-85-8		

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

REACH Reg. 01-2119987993-12-XXXX

Fatty acids, -C14-18-and-C16-18-unsaturated, -2-phenoxyethyl esters, maleates

INDEX 0,15 ≤ x < 0,2 **Eye Irrit. 2 H319, Skin Sens. 1 H317**

EC 292-835-4

CAS 91001-64-8

REACH Reg. 01-2120057275-56-0000

MALEIC ANHYDRIDE

INDEX 607-096-00-9 0,001 ≤ x < 0,05

Acute Tox. 4 H302, STOT RE 1 H372, Skin Corr. 1B H314, Eye Dam. 1 H318, Resp. Sens. 1 H334, Skin Sens. 1A H317, EUH071

EC 203-571-6

CAS 108-31-6

Skin Sens. 1A H317: ≥ 0,001%

LD50 Oral: 400 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. 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

IF exposed or concerned: 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.

OXYRANE, MONO[(C12-14 -ALKYLOXY)METHYL] DERIVATIVES

NOT SUITABLE: strong jets of water.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

SECTION 5. Firefighting measures ... / >>

Do not breathe combustion products.

2,2-BIS-[4-(2,3-EPOXYPROPOXY)PHENYL]-PROPANE
Phenolic compounds. Carbon monoxide. Carbon dioxide.

OXYRANE, MONO[(C12-14 -ALKYLOXY)METHYL] DERIVATIVES

In case of fire, the following may be released: carbon monoxide. Carbon dioxide (CO₂) Hydrogen chloride (HCl)

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
ESP	España	Límites de exposición profesional para agentes químicos en España 2024
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
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
ROU	România	HOTĂRÂRE nr. 179 din 28 februarie 2024 pentru modificarea și completarea Hotărârii Guvernului nr. 1.093/2006 privind stabilirea cerințelor minime de securitate și sănătate pentru protecția lucrătorilor împotriva riscurilor legate de expunerea la agenți ca
GBR	United Kingdom ACGIH	EH40/2005 Workplace exposure limits (Fourth Edition 2020) ACGIH 2025

MALEIC ANHYDRIDE

Threshold Limit Value

Type	Country	TWA/8h mg/m3	ppm	STEL/15min mg/m3	ppm	Remarks / Observations
TLV	BGR	1				
AGW	DEU	0,081	0,02	0,081	0,02	11
MAK	DEU	0,081	0,02	0,081 (C)	0,02 (C)	C = 0,20 mg/m3
VLA	ESP	0,4	0,1			
VLEP	FRA			1		
TLV	GRC	1				
AK	HUN	0,08	0,2	0,08	0,2	
NDS/NDSch	POL	0,5		1		SKIN
TLV	ROU	1	0,25	3	0,75	
WEL	GBR	1		3		
ACGIH		0,01	0,0025			INHAL

4-morpholinecarbaldehyde

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,5	mg/l
Normal value in marine water	0,05	mg/l
Normal value for fresh water sediment	1,85	mg/kg
Normal value for marine water sediment	0,185	mg/kg
Normal value for marine water, intermittent release	5	mg/l
Normal value of STP microorganisms	2000	mg/l
Normal value for the terrestrial compartment	0,0764	mg/kg
Normal value for the atmosphere	NPI	

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI		4,17 mg/kg bw/d				
Inhalation	NPI	NPI	13,3 mg/m3	8,93 mg/m3	NPI	NPI	13,3 mg/m3	50,3 mg/m3
Skin	NPI	NPI	MED	4,17 mg/kg bw/d	NPI	NPI	MED	11,7 mg/kg bw/d

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

Fatty acids, -C14-18-and-C16-18-unsaturated, -2-phenoxyethyl esters, maleates

Predicted no-effect concentration - PNEC

Normal value for the food chain (secondary poisoning) 20 mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI		0,5 mg/kg bw/d				
Skin	HIGH	NPI	HIGH	0,5 mg/kg bw/d	HIGH	NPI	HIGH	1 mg/kg bw/d

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			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic 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

OXYRANE, MONO[(C12-14 -ALKYLOXY)METHYL] DERIVATIVES

Predicted no-effect concentration - PNEC

Normal value in fresh water 0,106 mg/l
Normal value in marine water 0,011 mg/l
Normal value for fresh water sediment 307,16 mg/kg/d
Normal value for marine water sediment 30,72 mg/kg/d
Normal value for marine water, intermittent release 0,072 mg/l
Normal value of STP microorganisms 10 mg/l
Normal value for the terrestrial compartment 1,234 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				0,5 mg/kg bw/d				
Inhalation	MED		MED	0,87 mg/m3	MED		MED	3,6 mg/m3
Skin	MED		MED	0,5 mg/kg bw/d	MED		MED	1 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 ; 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.

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

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	grey	
Odour	not available	
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	1,06 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.

SECTION 10. Stability and reactivity ... / >>**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.

OXYRANE, MONO[(C12-14 -ALKYLOXY)METHYL] DERIVATIVES

Reacts violently in contact with amines and acids.

10.4. Conditions to avoid

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

OXYRANE, MONO[(C12-14 -ALKYLOXY)METHYL] DERIVATIVES

Avoid heat.

FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PENOL

Heat, flames and sparks

10.5. Incompatible materials

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

Oxidizing materials, acids, bases and amines.

OXYRANE, MONO[(C12-14 -ALKYLOXY)METHYL] DERIVATIVES

Acids, alkalis, oxidizing agents and 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.

OXYRANE, MONO[(C12-14 -ALKYLOXY)METHYL] DERIVATIVES

Hazardous decomposition products: carbon monoxide and 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 1272/2008Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

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

Information not available

Interactive effects

Information not available

SECTION 11. Toxicological information ... / >>

ACUTE TOXICITY

ATE (Inhalation) of the mixture: Not classified (no significant component)
ATE (Oral) of the mixture: Not classified (no significant component)
ATE (Dermal) of the mixture: Not classified (no significant component)

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

OXYRANE, MONO[(C12-14 -ALKYLOXY)METHYL] DERIVATIVES

LD50 (Dermal): 4000 mg/kg Rabbit (report di studio (1980))
LD50 (Oral): 2680 mg/kg Rat (report di studio (1974))
Reference: study report (1974)
Reliability (Klimisch score): 2
Species: Rat (Sprague-Dawley; male)
Routes of exposure: oral
Results: LD50 = 2680 mg/kg

Reference: study report (1977)
Reliability (Klimisch score): 2
Species: rat
Routes of exposure: inhalation
Results: LC0 = 0.15 mg/l air/7h

Reference: study report (1980)
Reliability (Klimisch score): 2
Species: Rabbit (New Zealand White; male)
Routes of exposure: dermal
Results: LD50 = 4000 mg/kg

Oxirane, (chloromethyl)-, polymer with .alpha.-hydro-.omega.-hydroxypoly(oxy(methyl-1,2-ethanediyl))

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

4-morpholinecarbaldehyde

LD50 (Dermal): 18400 mg/kg Rabbit
LD50 (Oral): 7314 mg/kg
LC50 (Inhalation vapours): 5319 mg/l/4h Rat

Fatty acids, -C14-18-and-C16-18-unsaturated, -2-phenoxyethyl esters, maleates

LD50 (Oral): 8295 mg/kg Rat

MALEIC ANHYDRIDE

LD50 (Dermal): 610 mg/kg Rat
LD50 (Oral): 400 mg/kg Rat

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

SECTION 11. Toxicological information ... / >>

Results: skin irritant

FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PENOL
Based on available data, the substance is classified as skin irritant, cat.2

OXYRANE, MONO[(C12-14 -ALKYLOXY)METHYL] DERIVATIVES

Method: Equivalent or similar to EPA OTS 798.4470

Reliability (Klimisch score): 2

Species: rabbit (New Zealand White)

Routes of exposure: dermal

Results: irritation (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

OXYRANE, MONO[(C12-14 -ALKYLOXY)METHYL] DERIVATIVES

Based on the weight of evidence of available data, the substance is not classified for the hazard class of serious eye damage/eye irritation.

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

FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PENOL
Based on available data, the substance is classified as a skin sensitizer.

OXYRANE, MONO[(C12-14 -ALKYLOXY)METHYL] DERIVATIVES

Method: OECD 406

Reliability (Klimisch score): 1

Species: guinea pig

Routes of exposure: dermal

Results: irritant (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

OXYRANE, MONO[(C12-14 -ALKYLOXY)METHYL] DERIVATIVES

Method: OECD 476 - In vitro test

Reliability (Klimisch score): 1

Species: Chinese hamster (ovaries)

Results: negative with and without metabolic activation

Method: OECD 474

Reliability (Klimisch score): 1

SECTION 11. Toxicological information ... / >>

Species: mouse (ICR; male/female)
Routes of exposure: intraperitoneal
Results: negative

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

OXYRANE, MONO[(C12-14 -ALKYLOXY)METHYL] DERIVATIVES

Based on available data, the substance does not have carcinogenic effects and is therefore not classified in the relevant CLP hazard class.

REPRODUCTIVE TOXICITY

May damage fertility

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

OXYRANE, MONO[(C12-14 -ALKYLOXY)METHYL] DERIVATIVES
Method: equivalent or similar to OECD 414
Reliability (Klimisch score): 1
Species: rat (CrI:CD@ (SD)BR)
Routes of exposure: dermal
Results: negative. NOAEL (development)= 200 mg/kg body weight/day; NOAEL (maternal)= 200 mg/kg body weight/day; NOAEL (malformations) = 200 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.

OXYRANE, MONO[(C12-14 -ALKYLOXY)METHYL] DERIVATIVES

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

SECTION 11. Toxicological information ... / >>**OXYRANE, MONO[(C12-14 -ALKYLOXY)METHYL] DERIVATIVES**

Method: OECD 408

Reliability (Klimisch score): 1

Species: rat (Wistar; male/female)

Routes of exposure: oral

Results: negative. NOEL (male) = 100 mg/kg body weight/day; NOEL (female) = 300 mg/kg body weight/day

Method: OECD 411

Reliability (Klimisch score): 2

Species: rat (Fischer 344 Male/Female)

Routes of exposure: inhalation

Results: NOEL = 1 mg/kg body weight/day; LOEL: 10 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.

OXYRANE, MONO[(C12-14 -ALKYLOXY)METHYL] DERIVATIVES

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-morpholinecarbaldehyde

Repeated dose toxicity:

Oral:

NOAEL: 1 000 mg/kg bw/day (rat)

Inhalation:

NOAEC: 1 mg/L air (rat)

LOAEC: 100 mg/m³ air (rat)

Fatty acids, -C14-18-and-C16-18-unsaturated, -2-phenoxyethyl esters, maleates

Repeated dose toxicity:

Oral:

NOAEL: 300 mg/kg bw/day (rat)

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)

OXYRANE, MONO[(C12-14 -ALKYLOXY)METHYL] DERIVATIVES

EC50 - for Crustacea

7,2 mg/l/48h

Chronic NOEC for Fish

100 mg/l (4 days)

Chronic NOEC for Algae / Aquatic Plants

500 mg/l (72h)

LL50 - Fish: > 100 mg/l/96h, Oncorhynchus mykiss (OECD 203)

EL50 - Crustaceans: 7.2 mg/l/48h, Daphnia magna (OECD 202)

IC50- Algae and Aquatic Plants: 843.75 mg/l/72h, Pseudokirchneriella subcapitata (OECD 201)

NOELR Chronic Crustaceans: Daphnia magna, 56 mg/l/21 days (OECD 211)

Chronic NOEC Algae and Aquatic Plants: 500 mg/l/72h, Pseudokirchneriella subcapitata (OECD 201)

SECTION 12. Ecological information ... / >>

Oxirane, (chloromethyl)-, polymer with .alpha.-hydro.-omega.-hydroxypoly(oxy(methyl-1,2-ethanediyl))
LC50 - for Fish > 67 mg/l/96h
EC50 - for Crustacea > 90 mg/l/48h

4-morpholinecarbaldehyde
LC50 - for Fish 500 mg/l/96h
EC50 - for Crustacea 500 mg/l/48h
EC50 - for Algae / Aquatic Plants 23880 mg/l/72h
EC10 for Algae / Aquatic Plants 17040 mg/l/72h
Chronic NOEC for Crustacea 38 mg/l (21 days)

Fatty acids, -C14-18-and-C16-18-unsaturated, -2-phenoxyethyl esters, maleates
EC50 - for Crustacea 100 mg/l/48h
EC50 - for Algae / Aquatic Plants 100 mg/l/72h

12.2. Persistence and degradability

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

OXYRANE, MONO[(C12-14 -ALKYLOXY)METHYL] DERIVATIVES
Rapidly degradable 87% in 28 giorni (OECD 301 F)

4-morpholinecarbaldehyde
Rapidly degradable 100%

MALEIC ANHYDRIDE
Solubility in water > 10000 mg/l
Inherently degradable

12.3. Bioaccumulative potential

OXYRANE, MONO[(C12-14 -ALKYLOXY)METHYL] DERIVATIVES
The bioaccumulation potential of the substance was calculated using US EPA EPISuite version 3.20 version 2.17 BCFWIN. Using two derived octanol/water coefficients, the bioaccumulation potential was calculated 160 - 263 (log 2.2 - 2.4).
Bioaccumulation in the food chain is not expected

MALEIC ANHYDRIDE
Partition coefficient: n-octanol/water -2,78

12.4. Mobility in soil

OXYRANE, MONO[(C12-14 -ALKYLOXY)METHYL] DERIVATIVES
Method: OECD 121
Reliability (Klimisch score): 1
KOC results: > 4.90
The substance is absorbed by organic carbon in the soil and is therefore classified as immobile

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 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; OXYRANE, MONO[(C12-14 -ALKYLOXY)METHYL] DERIVATIVES)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(2,2-BIS-[4-(2,3-EPOXYPROPOSY)PHENYL]-PROPANE; OXYRANE, MONO[(C12-14 -ALKYLOXY)METHYL] DERIVATIVES)

IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(2,2-BIS-[4-(2,3-EPOXYPROPOSY)PHENYL]-PROPANE; OXYRANE, MONO[(C12-14 -ALKYLOXY)METHYL] DERIVATIVES)

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

SECTION 14. Transport information ... / >>

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	Tunnel restriction code: (-)
	Special provision: 274, 335, 375, 601		
IMDG:	EMS: F-A, S-F	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 450 L	Packaging instructions: 964
	Passengers:	Maximum quantity: 450 L	Packaging instructions: 964
	Special provision:	A97, A158, A197, A215	

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:

Repr. 1B	Reproductive toxicity, category 1B
Acute Tox. 4	Acute toxicity, category 4
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Resp. Sens. 1	Respiratory sensitization, category 1
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Skin Sens. 1B	Skin sensitization, category 1B
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H360F	May damage fertility.
H302	Harmful if swallowed.
H372	Causes damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH071	Corrosive to the respiratory tract.

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

SECTION 16. Other information ... / >>

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)
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- 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.

Changes to previous review:

The following sections were modified:

02 / 03 / 04 / 09 / 11 / 12 / 13 / 14 / 15 / 16.