

**ORTHOPOXY SLOW RESIN**



**SAFETY DATA SHEET**

(REACH regulation (EC) n° 1907/2006 - n° 2020/878)

**SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1. Product identifier**

Product name : ORTHOPOXY SLOW RESIN  
UFI : P12X-9871-D00N-SC7P J81X-R80F-N006-T903

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

**1.3. Details of the supplier of the safety data sheet**

Registered company name : Uniprox GmbH & Co. KG.  
Address : Heinrich-Heine-Straße 4.07937.Zeulenroda-Triebes.GERMANY.  
Telephone : +49 (0) 36628-66-33 00. Fax : +49 (0) 36628-66-33 55.  
info@uniprox.de

**1.4. Emergency telephone number : +49 (0) 551-19240.**

Association/Organisation : .

**SECTION 2 : HAZARDS IDENTIFICATION**

**2.1. Classification of the substance or mixture**

**In compliance with EC regulation No. 1272/2008 and its amendments.**

Acute oral toxicity, Category 4 (Acute Tox. 4, H302).  
Skin irritation, Category 2 (Skin Irrit. 2, H315).  
Serious eye damage, Category 1 (Eye Dam. 1, H318).  
Skin sensitisation, Category 1 (Skin Sens. 1, H317).  
Germ cell mutagenicity, Category 2 (Muta. 2, H341).  
Hazardous to the aquatic environment - Chronic hazard, Category 3 (Aquatic Chronic 3, H412).  
This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

**2.2. Label elements**

**In compliance with EC regulation No. 1272/2008 and its amendments.**

Hazard pictograms :



GHS05



GHS08



GHS07

Signal Word :

DANGER

Product identifiers :

EC 236-211-1 2,2',2''-(1,2,3-PROPANETRIYLRIS(OXYMETHYLENE))TRISOXIRANE  
EC 219-371-7 1,4-BIS(2,3 EPOXYPROPOXY)BUTANE  
EC 500-114-5 GLYCEROL, PROPOXYLATED, ESTER WITH ACRYLIC ACID  
EC 908-912-9 BISPHENOL F

Hazard statements :

H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H341 Suspected of causing genetic defects (in contact with skin).  
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements - Prevention :

P202 Do not handle until all safety precautions have been read and understood.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P270 Do not eat, drink or smoke when using this product.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P273 Avoid release to the environment.

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## Precautionary statements - Response :

P301 + P312	IF SWALLOWED: Call a POISON CENTER/doctor/... if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of water/...
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P330	Rinse mouth.

**2.3. Other hazards**

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC)  $\geq 0.1\%$  published by the European Chemicals Agency (ECHA) under article 59 of REACH: <http://echa.europa.eu/fr/candidate-list-table>

The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

The mixture does not contain substances  $\geq 0.1\%$  with endocrine disrupting properties in accordance with the criteria of the Delegated Regulation (EU) 2017/2100 of the Commission or Regulation (EU) 2018/605 of the Commission.

**SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS****3.2. Mixtures****Composition :**

Identification	Classification (EC) 1272/2008	Note	%
CAS: 13236-02-7 EC: 236-211-1 REACH: 01-2120804934-53-0000 2,2',2''-(1,2,3-PROPANETRIYLTRIS(OXYMETHYLENE))TRISOXIRANE	GHS07, GHS05, GHS08 Dgr Acute Tox. 4, H302 Eye Dam. 1, H318 Muta. 2, H341 Aquatic Chronic 3, H412	[ii]	10 $\leq$ x % < 25
CAS: 2425-79-8 EC: 219-371-7 REACH: 01-2119494060-45-0015 1,4-BIS(2,3 EPOXYPROPOXY)BUTANE	GHS07, GHS05 Dgr Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Dam. 1, H318 Acute Tox. 4, H332 Aquatic Chronic 3, H412		10 $\leq$ x % < 25
CAS: 52408-84-1 EC: 500-114-5 REACH: 01-2119487948-12-0003 GLYCEROL, PROPOXYLATED, ESTER WITH ACRYLIC ACID	GHS07 Wng Skin Sens. 1, H317 Eye Irrit. 2, H319		10 $\leq$ x % < 25
CAS: 1333-16-0 EC: 908-912-9 BISPHENOL F	GHS05, GHS07 Dgr Skin Sens. 1, H317 Eye Dam. 1, H318		0 $\leq$ x % < 1

**Information on ingredients :**

(Full text of H-phrases: see section 16)

[ii] Carcinogenic, mutagenic or reprotoxic (CMR) substance.

**SECTION 4 : FIRST AID MEASURES**

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

**4.1. description of first aid measures****In the event of splashes or contact with eyes :**

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

Regardless of the initial state, refer the patient to an ophthalmologist and show him the label.

**In the event of splashes or contact with skin :**

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

In the event of an allergic reaction, seek medical attention.

If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.

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### In the event of swallowing :

Do not give the patient anything orally.

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water, administer activated medical charcoal and consult a doctor.

Seek medical attention immediately, showing the label.

If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show the label.

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

No data available.

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

No data available.

## SECTION 5 : FIREFIGHTING MEASURES

Non-flammable.

### 5.1. Extinguishing media

### 5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide (CO<sub>2</sub>)

### 5.3. Advice for firefighters

Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

## SECTION 6 : ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

#### For non first aid worker

Avoid any contact with the skin and eyes.

#### For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

### 6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

### 6.3. Methods and material for containment and cleaning up

Clean preferably with a detergent, do not use solvents.

### 6.4. Reference to other sections

No data available.

## SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

Individuals with a history of skin sensitisation should not, under any circumstance, handle this mixture.

### 7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Emergency showers and eye wash stations will be required in facilities where the mixture is handled constantly.

#### Fire prevention :

Prevent access by unauthorised personnel.

#### Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Avoid eye contact with this mixture at all times.

Avoid exposure - obtain special instructions before use.

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### Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

### 7.2. Conditions for safe storage, including any incompatibilities

No data available.

### Storage

Keep away from food and drink, including those for animals.

### Packaging

Always keep in packaging made of an identical material to the original.

### 7.3. Specific end use(s)

No data available.

## SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

No data available.

### 8.2. Exposure controls

#### Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :



Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

#### - Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles with protective sides accordance with standard ISO 16321.

In the event of high danger, protect the face with a face shield.

Prescription glasses are not considered as protection.

Individuals wearing contact lenses should wear prescription glasses during work where they may be exposed to irritant vapours.

Provide eyewash stations in facilities where the product is handled constantly.

#### - Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN ISO 374-1.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

#### - Body protection

Avoid skin contact.

Wear suitable protective clothing.

Suitable type of protective clothing :

In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605/A1 to prevent skin contact.

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034/A1 to prevent skin contact.

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

## SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

#### Physical state

Physical state : Viscous liquid.

#### Colour

Unspecified

**ORTHOPOXY SLOW RESIN****Odour**

Odour threshold : Not stated.

**Melting point**

Melting point/melting range : Not specified.

**Freezing point**

Freezing point / Freezing range : Not stated.

**Boiling point or initial boiling point and boiling range**

Boiling point/boiling range : Not specified.

**Flammability**

Flammability (solid, gas) : Not stated.

**Lower and upper explosion limit**

Explosive properties, lower explosivity limit (%) Not stated.

:

Explosive properties, upper explosivity limit (%) Not stated.

:

**Flash point**

Flash point interval : Not relevant.

**Auto-ignition temperature**

Self-ignition temperature : Not specified.

**Decomposition temperature**

Decomposition point/decomposition range : Not specified.

**pH**

pH : Not stated.

Neutral.

pH (aqueous solution) : Not stated.

**Kinematic viscosity**

Viscosity : Not stated.

**Solubility**

Water solubility : Insoluble.

Fat solubility : Not stated.

**Partition coefficient n-octanol/water (log value)**

Partition coefficient: n-octanol/water : Not stated.

**Vapour pressure**

Vapour pressure (50°C) : Not relevant.

**Density and/or relative density**

Density : &gt; 1

**Relative vapour density**

Vapour density : Not stated.

**Particle characteristics**

The mixture does not contain nanoforms.

**9.2. Other information**

No data available.

**9.2.1. Information with regard to physical hazard classes**

No data available.

**9.2.2. Other safety characteristics**

No data available.

**SECTION 10 : STABILITY AND REACTIVITY****10.1. Reactivity**

No data available.

**10.2. Chemical stability**

This mixture is stable under the recommended handling and storage conditions in section 7.

**10.3. Possibility of hazardous reactions**

No data available.

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**10.4. Conditions to avoid**

No data available.

**10.5. Incompatible materials**

No data available.

**10.6. Hazardous decomposition products**

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO<sub>2</sub>)

**SECTION 11 : TOXICOLOGICAL INFORMATION**

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

Harmful if swallowed.

May cause irreversible damage to the skin; namely inflammation of the skin or the formation of erythema and eschar or oedema following exposure up to four hours.

May have irreversible effects on the eyes, such as tissue damage in the eye, or serious physical decay of sight, which is not fully reversible by the end of observation at 21 days.

Serious eye damage is typified by the destruction of cornea, persistent corneal opacity and iritis.

May cause an allergic reaction by skin contact.

Cause for concern owing to the possibility that it may induce heritable mutations in the germ cells of humans.

**11.1.1. Substances**

**Acute toxicity :**

1,4-BIS(2,3 EPOXYPROPOXY)BUTANE (CAS: 2425-79-8)

Dermal route : 1,000 < LD50 <= 2000 mg/kg

Inhalation route (Vapours) : 10 < LC50 <= 20 mg/l  
Duration of exposure : 4 h

GLYCEROL, PROPOXYLATED, ESTER WITH ACRYLIC ACID (CAS: 52408-84-1)

Oral route : LD50 > 2000 mg/kg bodyweight/day  
Species : Rat

Dermal route : LD50 > 2000 mg/kg bodyweight/day  
Species : Rabbit

**Skin corrosion/skin irritation :**

GLYCEROL, PROPOXYLATED, ESTER WITH ACRYLIC ACID (CAS: 52408-84-1)

Corrosivity : No observed effect.  
Species : Rabbit  
OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

**Germ cell mutagenicity :**

GLYCEROL, PROPOXYLATED, ESTER WITH ACRYLIC ACID (CAS: 52408-84-1)

No mutagenic effect.

Mutagenesis (in vivo) : Negative.  
OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Mutagenesis (in vitro) : Negative.  
OECD Guideline 471 (Bacterial Reverse Mutation Assay)

**Carcinogenicity :**

GLYCEROL, PROPOXYLATED, ESTER WITH ACRYLIC ACID (CAS: 52408-84-1)

Species : Mouse  
OECD Guideline 451 (Carcinogenicity Studies)

**Reproductive toxicant :**

GLYCEROL, PROPOXYLATED, ESTER WITH ACRYLIC ACID (CAS: 52408-84-1)

No toxic effect for reproduction

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Study on fertility :	Species : Rat OECD Guideline 414 (Prenatal Developmental Toxicity Study)
Study on development :	Species : Rat OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

### 11.1.2. Mixture

No toxicological data available for the mixture.

### 11.2. Information on other hazards

#### Endocrine disrupting properties

The mixture does not contain any substance evaluated as an endocrine disruptor with effects on human health.

## SECTION 12 : ECOLOGICAL INFORMATION

Harmful to aquatic life with long lasting effects.

The product must not be allowed to run into drains or waterways.

### 12.1. Toxicity

#### 12.1.1. Substances

GLYCEROL, PROPOXYLATED, ESTER WITH ACRYLIC ACID (CAS: 52408-84-1)

Fish toxicity :	LC50 = 5.74 mg/l Duration of exposure : 96 h OECD Guideline 203 (Fish, Acute Toxicity Test)
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Crustacean toxicity :	EC50 = 91.4 mg/l Duration of exposure : 48 h OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
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Algae toxicity :	ECr50 = 12.2 mg/l Duration of exposure : 72 h OECD Guideline 201 (Alga, Growth Inhibition Test)
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NOEC = 20.6 mg/l Duration of exposure : 72 h
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#### 12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

### 12.2. Persistence and degradability

#### 12.2.1. Substances

GLYCEROL, PROPOXYLATED, ESTER WITH ACRYLIC ACID (CAS: 52408-84-1)

Biodegradability :	Rapidly degradable.
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### 12.3. Bioaccumulative potential

No data available.

### 12.4. Mobility in soil

No data available.

### 12.5. Results of PBT and vPvB assessment

No data available.

### 12.6. Endocrine disrupting properties

The mixture does not contain any substance evaluated as an endocrine disruptor with environmental effects.

### 12.7. Other adverse effects

No data available.

## SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

### 13.1. Waste treatment methods

Do not pour into drains or waterways.

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**Waste :**

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

**Soiled packaging :**

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

**SECTION 14 : TRANSPORT INFORMATION**

Exempt from transport classification and labelling.

**14.1. UN number or ID number**

-

**14.2. UN proper shipping name**

-

**14.3. Transport hazard class(es)**

-

**14.4. Packing group**

-

**14.5. Environmental hazards**

-

**14.6. Special precautions for user**

-

**14.7. Maritime transport in bulk according to IMO instruments**

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**SECTION 15 : REGULATORY INFORMATION**

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

**Classification and labelling information included in section 2:**

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2023/707.

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2024/197. (ATP 21)

**Container information:**

No data available.

**Restrictions applied under Title VIII of Regulation (EC) No. 1907/2006 (REACH):**

The mixture does not contain any substance restricted under Annex XVII of Regulation (EC) No. 1907/2006 (REACH):  
<https://echa.europa.eu/substances-restricted-under-reach>.

**Explosives precursors :**

The mixture does not contain any substance subject to Regulation (EU) 2019/1148 on the marketing and use of explosives precursors.

**Particular provisions :**

No data available.

**15.2. Chemical safety assessment**

No data available.

**SECTION 16 : OTHER INFORMATION**

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

**Wording of the phrases mentioned in section 3 :**

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

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H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H341	Suspected of causing genetic defects .
H412	Harmful to aquatic life with long lasting effects.

**Abbreviations and acronyms :**

LD50 : The dose of a test substance resulting in 50% lethality in a given time period.  
LC50 : The concentration of a test substance resulting in 50% lethality in a given period.  
EC50 : The effective concentration of substance that causes 50% of the maximum response.  
ECr50 : The effective concentration of substance that causes 50% reduction in growth rate.  
NOEC : The concentration with no observed effect.  
REACH : Registration, Evaluation, Authorization and Restriction of Chemical Substances.  
CMR: Carcinogenic, mutagenic or reprotoxic.  
UFI : Unique formulation identifier.  
ADR : European agreement concerning the international carriage of dangerous goods by Road.  
IMDG : International Maritime Dangerous Goods.  
IATA : International Air Transport Association.  
ICAO : International Civil Aviation Organisation  
RID : Regulations concerning the International carriage of Dangerous goods by rail.  
WGK : Wassergefährdungsklasse (Water Hazard Class).  
GHS05 : Corrosion  
GHS07 : Exclamation mark  
GHS08 : Health hazard  
PBT: Persistent, bioaccumulable and toxic.  
vPvB : Very persistent, very bioaccumulable.  
SVHC : Substances of very high concern.