

SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation
(EU) No. 453/2010

HARDENER NF BAXAB

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

1.1 Product identifier

Product name : Hardener NF Baxab

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

Product use Coverings Resin Systems

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: : TOPCRET TECNOLOGIA EN REVESTIMIENTOS S.L.
Gran Vía de Les Corts Catalanes, 828
08013 Barcelona – España

Telephone :+34 932 741 208

Contact Person :info@topcret.com

1.4 Emergency telephone number

Toxicological Information Medical Service 91 562 04 20

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

According to Regulation (EC) No 1272/2008 [CLP]

Acute Tox. 4 (Inhalation - vapour)
Skin Sens. 1
STOT SE 3 (irritating to respiratory system)
Aquatic Chronic 3

| H332, H317, H335, H412

For the classifications not written out in full in this section the full text can be found in section 16.

2.2. Label elements

Globally Harmonized System, EU (GHS)

Pictogram:



Signal Word:
Warning

Hazard Statement:

H332	Harmful if inhaled.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280	Wear protective gloves.
P271	Use only outdoors or in a well-ventilated area.
P260	Do not breathe mist or vapour.
P273	Avoid release to the environment.
P272	Contaminated work clothing should not be allowed out of the workplace.

Precautionary Statements (Response):

P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303 + P362	IF ON SKIN (or hair): Wash with plenty of soap and water.
P333 + P311	If skin irritation or rash occurs: Call a POISON CENTER or doctor/physician.
P362 + P364	Take off contaminated clothing and wash it before reuse.

Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Precautionary Statements (Disposal):

P501 Dispose of contents/container to hazardous or special waste collection point.

Labeling of special preparations (GHS):

EUH204: Contains isocyanates. May produce an allergic reaction.

According to Regulation (EC) No 1272/2008 [CLP]

| Hazard determining component(s) for labelling: HEXAMETHYLENE DIISOCYANATE, OLIGOMERS

2.3. Other hazards

According to Regulation (EC) No 1272/2008 [CLP]

No specific dangers known, if the regulations/notes for storage and handling are considered.

SECTION 3: Composition/Information on Ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Chemical nature

polyfunctional polyisocyanate

Hazardous ingredients (GHS)

according to Regulation (EC) No. 1272/2008

| (OLIGOMER) Hexamethylene diisocyanate isocyanurate-type oligomers

Content (W/W): $\geq 60\%$ - $\leq 80\%$	Acute Tox. 4 (Inhalation - mist)
CAS Number: 28182-81-2	Skin Sens. 1
REACH registration number: 01-2119485796-17	STOT SE 3 (irr. to respiratory syst.) H332, H317, H335

Poly(oxy-1,2-ethanediyl), .alpha.-methyl-.omega.-hydroxy-, polymer with 1,6-diisocyanatohexane, block

Content (W/W): $\geq 20\%$ - $\leq 35\%$	Aquatic Chronic 3
CAS Number: 143472-08-6	H412

| hexamethylene-di-isocyanate

Content (W/W): < 0.3 %	Acute Tox. 4 (oral)
CAS Number: 822-06-0	Acute Tox. 1 (Inhalation - mist)
EC-Number: 212-485-8	Skin Corr./Irrit. 2
REACH registration number: 01-2119457571-37	Eye Dam./Irrit. 2
INDEX-Number: 615-011-00-1	Resp. Sens. 1
	Skin Sens. 1
	STOT SE 3 (irr. to respiratory syst.)
	H319, H315, H330, H302, H334, H317, H335
	<u>Specific concentration limit:</u>
	Resp. Sens. 1: >= 0.5 %
	Skin Sens. 1: >= 0.5 %

For the classifications not written out in full in this section, including the hazard classes and the hazard statements, the full text is listed in section 16.

SECTION 4: First-Aid Measures

4.1. Description of first aid measures

Immediately remove contaminated clothing.

If inhaled:

If difficulties occur after vapour/aerosol has been inhaled, remove to fresh air and seek medical attention.

On skin contact:

Wash thoroughly with soap and water.

On contact with eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

On ingestion:

Rinse mouth immediately and then drink plenty of water, seek medical attention.

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

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further important symptoms and effects are so far not known.

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

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing media

Suitable extinguishing media:

water spray, dry powder, foam

Unsuitable extinguishing media for safety reasons:
water jet

5.2. Special hazards arising from the substance or mixture

harmful vapours

Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

5.3. Advice for fire-fighters

Special protective equipment:

Wear a self-contained breathing apparatus.

Further information:

The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

SECTION 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Breathing protection required.

6.2. Environmental precautions

Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up

For large amounts: Pump off product.

For residues: Pick up with suitable absorbent material. Dispose of absorbed material in accordance with regulations.

6.4. Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

SECTION 7: Handling and Storage

7.1. Precautions for safe handling

No special measures necessary provided product is used correctly.

Protection against fire and explosion:

Take precautionary measures against static discharges.

7.2. Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Keep container tightly closed and in a cool place. Keep container dry.

Storage stability:

If moisture enters isocyanate containers, CO₂ forms and pressure builds up.

Protect from temperatures above: 50 °C

7.3. Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

Components with occupational exposure limits

| 822-06-0: hexamethylene-di-isocyanate

8.2. Exposure controls

Personal protective equipment

Respiratory protection:

Suitable respiratory protection for higher concentrations or long-term effect: Gas filter for gases/vapours of organic compounds (boiling point >65 °C, e. g. EN 14387 Type A)

Hand protection:

Chemical resistant protective gloves (EN 374)

Suitable materials for short-term contact (recommended: At least protective index 2, corresponding > 30 minutes of permeation time according to EN 374)

butyl rubber (butyl) - 0.7 mm coating thickness

nitrile rubber (NBR) - 0.4 mm coating thickness

Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is required additionally to the stated personal protection equipment.

For information regarding environmental exposure controls, see Section 6.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Form:	liquid	
Colour:	colourless to yellowish	
Odour:	faint specific odour	
Odour threshold:	not determined	
pH value:	not applicable	
Melting point:	approx. -46 °C	(DIN 51583)
Boiling point:	not determined	
Flash point:	168 °C	(DIN EN 22719; ISO 2719)
Evaporation rate:	not determined	
Flammability:	not flammable	
Lower explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.	
Upper explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.	
Ignition temperature:	414 °C	(DIN EN 14522)
Vapour pressure:	< 0.0001 hPa	
Density:	1.16 g/cm ³ (20 °C)	
	1.14 g/cm ³ (50 °C)	
Relative density:	1.16 (20 °C)	
Relative vapour density (air):	not determined	
Solubility in water:	Reacts with water.	
Solubility (qualitative) solvent(s):	polar solvents	
	soluble	

Partitioning coefficient n-octanol/water (log K_{ow}):
Study scientifically not justified.
Self ignition: not self-igniting
Thermal decomposition: No decomposition if used correctly.
Viscosity, dynamic: 1,500 - 3,000 mPa.s (DIN EN ISO 3219)
(23 °C, 50 1/s)
Explosion hazard: not explosive
Fire promoting properties: not fire-propagating

9.2. Other information

Self heating ability: It is not a substance capable of spontaneous heating.
Miscibility with water: Reacts with water.
Hygroscopy: hygroscopic
Surface tension: Based on chemical structure, surface activity is not to be expected.
Grain size distribution: The substance / product is marketed or used in a non solid or granular form.

SECTION 10: Stability and Reactivity

10.1. Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

10.2. Chemical stability

The product is stable if stored and handled as prescribed/indicated.

10.3. Possibility of hazardous reactions

Reacts with alcohols. Reacts with amines. Reacts with substances which contain active hydrogen.
Reacts with water, with formation of carbon dioxide. The formation of gaseous decomposition products builds up pressure in tightly closed containers.

10.4. Conditions to avoid

Avoid moisture. Avoid humidity. Avoid direct contact with water.

10.5. Incompatible materials

Substances to avoid:
water, alcohols, amines

10.6. Hazardous decomposition products

| Hazardous decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated.

SECTION 11: Toxicological Information

11.1. Information on toxicological effects

Acute toxicity

Experimental/calculated data:

LD50 rat (oral): > 2,000 mg/kg

The product has not been tested. The statement has been derived from the properties of the individual components.

LC50 rat (by inhalation): > 1 - 5 mg/l 4 h

Determined for vapor The product has not been tested. The statement has been derived from the properties of the individual components.

LD50 rat (dermal):
not determined

Irritation

Experimental/calculated data:

Skin corrosion/irritation rabbit: non-irritant (OECD Guideline 404)

The product has not been tested. The statement has been derived from the properties of the individual components.

Serious eye damage/irritation rabbit: non-irritant (OECD Guideline 405)

The product has not been tested. The statement has been derived from the properties of the individual components.

Respiratory/Skin sensitization

Experimental/calculated data:

Guinea pig maximization test : skin sensitizing

sensitizing effect in animal tests The product has not been tested. The statement has been derived from the properties of the individual components.

Germ cell mutagenicity

Assessment of mutagenicity:

No data available concerning mutagenic effects.

Carcinogenicity

Assessment of carcinogenicity:

No data available.

Reproductive toxicity

Assessment of reproduction toxicity:
No data available.

Developmental toxicity

Assessment of teratogenicity:
No data available.

Specific target organ toxicity (single exposure)

Assessment of STOT single:
Causes temporary irritation of the respiratory tract.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
No data available.

Aspiration hazard

No aspiration hazard expected.

SECTION 12: Ecological Information

12.1. Toxicity

Assessment of aquatic toxicity:
The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish:
LC50 (96 h), Fish
not determined

Aquatic invertebrates:
EC50 (48 h) 10 - 100 mg/l, Daphnia magna
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Aquatic plants:
EC50 (72 h), algae
not determined

Microorganisms/Effect on activated sludge:
EC50 (3 h) > 1,000 mg/l, bacteria
The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Chronic toxicity to fish:
No data available.

Chronic toxicity to aquatic invertebrates:
No data available.

Assessment of terrestrial toxicity:
Study scientifically not justified.

12.2. Persistence and degradability

Assessment biodegradation and elimination (H₂O):
The substance can be virtually eliminated from water in suitable effluent treatment plants by biodegradation, stripping and mechanical separation.

Elimination information:
Not readily biodegradable (by OECD criteria).

12.3. Bioaccumulative potential

Assessment bioaccumulation potential:
The product has not been tested.

12.4. Mobility in soil

Assessment transport between environmental compartments:
Volatility: The substance will not evaporate into the atmosphere from the water surface.
Adsorption in soil: No data available.

12.5. Results of PBT and vPvB assessment

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

12.6. Other adverse effects

The product does not contain substances that are listed in Annex I of Regulation (EC) 2037/2000 on substances that deplete the ozone layer.

12.7. Additional information

Add. remarks environm. fate & pathway:
Treatment in biological waste water treatment plants has to be performed according to local and administrative regulations.

Other ecotoxicological advice:

Do not release untreated into natural waters. The local regulations on waste-water treatment must be followed.

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

Incinerate in suitable incineration plant, observing local authority regulations.

Contaminated packaging:

Uncontaminated packaging can be re-used.

Packs that cannot be cleaned should be disposed of in the same manner as the contents.

Refer to manufacturer/supplier for information on recovery/recycling.

SECTION 14: Transport Information

Land transport

ADR

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

RID

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

Inland waterway transport

ADN

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable

Transport hazard class(es): Not applicable
Packing group: Not applicable
Environmental hazards: Not applicable
Special precautions for user: None known

Transport in inland waterway vessel
Not evaluated

Sea transport

IMDG

Not classified as a dangerous good under transport regulations
UN number: Not applicable
UN proper shipping name: Not applicable
Transport hazard class(es): Not applicable
Packing group: Not applicable
Environmental hazards: Not applicable
Special precautions for user: None known

Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations
UN number: Not applicable
UN proper shipping name: Not applicable
Transport hazard class(es): Not applicable
Packing group: Not applicable
Environmental hazards: Not applicable
Special precautions for user: None known

14.1. UN number

See corresponding entries for "UN number" for the respective regulations in the tables above.

14.2. UN proper shipping name

See corresponding entries for "UN proper shipping name" for the respective regulations in the tables above.

14.3. Transport hazard class(es)

See corresponding entries for "Transport hazard class(es)" for the respective regulations in the tables above.

14.4. Packing group

See corresponding entries for "Packing group" for the respective regulations in the tables above.

14.5. Environmental hazards

See corresponding entries for "Environmental hazards" for the respective regulations in the tables above.

14.6. Special precautions for user

See corresponding entries for "Special precautions for user" for the respective regulations in the tables above.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Regulation:	Not evaluated
Shipment approved:	Not evaluated
Pollution name:	Not evaluated
Pollution category:	Not evaluated
Ship Type:	Not evaluated

SECTION 15: Regulatory Information

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

Prohibitions, Restrictions and Authorizations

Annex XVII of Regulation (EC) No 1907/2006: Number on List: 3

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

15.2. Chemical Safety Assessment

Chemical Safety Assessment not yet performed due to registration timelines

SECTION 16: Other Information

Full text of the classifications, including the hazard classes and the hazard statements, if mentioned in section 2 or 3:

Acute Tox.	Acute toxicity
Skin Sens.	Skin sensitization
STOT SE	Specific target organ toxicity — single exposure
Aquatic Chronic	Hazardous to the aquatic environment - chronic
Skin Corr./Irrit.	Skin corrosion/irritation
Eye Dam./Irrit.	Serious eye damage/eye irritation
Resp. Sens.	Respiratory sensitization
H332	Harmful if inhaled.

H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H330	Fatal if inhaled.
H302	Harmful if swallowed.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.