

Safety Data Sheet

Baxxodur® EC 130

Revision date : 2024/10/04

Version: 4.0

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(30344904/SDS_GEN_US/EN)

1. Identification

Product identifier used on the label

Baxxodur® EC 130

Recommended use of the chemical and restriction on use

Recommended use*: Chemical used in synthesis and/or formulation of industrial products

Recommended use*: Chemical

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:

BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300

BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Molecular formula: $C(10)H(24)N(2)O(3)$

Synonyms: 3,3'-(Oxybis(2,1-ethanediylloxy))bis-1-propanamine
3,3'-(3-Methyl-1,5- Pentadiylbis(oxy))bis-1-propanamine

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Skin Corr.	1B	Skin corrosion
Eye Dam.	1	Serious eye damage
Skin Sens.	1	Skin sensitization

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Label elements

Pictogram:



Signal Word:

Danger

Hazard Statement:

H317

May cause an allergic skin reaction.

H314

Causes severe skin burns and eye damage.

Precautionary Statements (Prevention):

P280

Wear protective gloves, protective clothing and eye protection or face protection.

P260

Do not breathe mist or vapour or spray.

P272

Contaminated work clothing should not be allowed out of the workplace.

P264

Wash contaminated body parts thoroughly after handling.

Precautionary Statements (Response):

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310

Immediately call a POISON CENTER or physician.

P303 + P361 + P353

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

P304 + P340

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P301 + P330 + P331

IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P362 + P364

Take off contaminated clothing and wash it before reuse.

Precautionary Statements (Storage):

P405

Store locked up.

Precautionary Statements (Disposal):

P501

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

Hazards not otherwise classified

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

3,3'-oxybis(ethyleneoxy)bis(propylamine)

CAS Number: 4246-51-9

Content (W/W): 98.0 - <= 100.0%

Synonym: 3,3'-[Oxybis(2,1-ethanedioxy)]bis-1-propanamine; 3,3'-Oxybis(ethyleneoxy)bis(propylamine)

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2-(2-(3-aminopropoxy)ethoxy)ethanol
CAS Number: 112-33-4
Content (W/W): 0.1 - < 1.0%
Synonym: No data available.

4. First-Aid Measures

Description of first aid measures

General advice:

Immediately remove contaminated clothing.

If inhaled:

Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary. Seek medical attention.

If on skin:

Immediately wash thoroughly with plenty of water, apply sterile dressings, consult a skin specialist.

If in eyes:

Flush with copious amounts of water for at least 15 minutes. Hold eyelids open to facilitate rinsing. Seek medical attention.

If swallowed:

Do not induce vomiting. Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: Overexposure may cause: corneal injury, skin corrosion, severe pain, coughing, respiratory disorders, dyspnea, allergic contact dermatitis, nausea, headache, vomiting, dizziness, diarrhea, abdominal cramps

Information on: 3,3'-oxybis(ethyleneoxy)bis(propylamine)

Symptoms: Overexposure may cause: corneal injury, skin corrosion, severe pain, coughing, respiratory disorders, dyspnea, allergic contact dermatitis, nausea, headache, vomiting, dizziness, diarrhea, abdominal cramps

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment:

Treat according to symptoms (decontamination, vital functions), no known specific antidote, administer corticosteroid dose aerosol to prevent pulmonary edema. Medical monitoring for at least 24-48 hours.

5. Fire-Fighting Measures

Extinguishing media

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Suitable extinguishing media:
water spray, dry powder, foam, carbon dioxide

Unsuitable extinguishing media for safety reasons:
water jet

Special hazards arising from the substance or mixture

Hazards during fire-fighting:

nitrogen oxides, carbon oxides

The substances/groups of substances mentioned can be released in case of fire. Under certain conditions in case of fire other hazardous combustion products may be generated.

Advice for fire-fighters

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Impact Sensitivity:

Remarks: Based on the chemical structure there is no shock-sensitivity.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear appropriate respiratory protection. Use personal protective clothing. Ensure adequate ventilation. Avoid contact with the skin, eyes and clothing. Avoid inhalation.

Environmental precautions

Do not discharge into drains/surface waters/groundwater.

Substance/product is RCRA hazardous due to its properties.

Methods and material for containment and cleaning up

Spills should be contained, solidified, and placed in suitable containers for disposal. Dispose of absorbed material in accordance with regulations.

7. Handling and Storage

Precautions for safe handling

Ensure adequate ventilation.

Protection against fire and explosion:

Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

Conditions for safe storage, including any incompatibilities

Segregate from acids and acid forming substances.

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Suitable materials for containers: Low density polyethylene (LDPE), Stainless steel 1.4301 (V2), Stainless steel 1.4401, glass, High density polyethylene (HDPE), Carbon steel (Iron)
Unsuitable materials for containers: Paper/Fibreboard

Further information on storage conditions: Containers should be stored tightly sealed in a dry place.

Storage stability:

Storage temperature: $\leq 45^{\circ}\text{C}$

Storage duration: 24 Months

From the data on storage duration in this safety data sheet no agreed statement regarding the warrantee of application properties can be deduced.

8. Exposure Controls/Personal Protection

No substance specific occupational exposure limits known.

Advice on system design:

Provide local exhaust ventilation to control vapours/mists.

Personal protective equipment

Respiratory protection:

Do not exceed the maximum use concentration for the respirator facepiece/cartridge combination. For emergency or non-routine, high exposure situations, use a NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions. Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator.

Hand protection:

Suitable chemical resistant safety gloves approved to relevant standards (e.g. US: ASTM F 739) also with prolonged, direct contact (Recommended: > 480 minutes of permeation time): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) and other.

Eye protection:

Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

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. Avoid contact with the skin, eyes and clothing. Avoid inhalation of vapour. Eye wash fountains and safety showers must be easily accessible. Take off immediately all contaminated clothing. Store work clothing separately. When using, do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks).

9. Physical and Chemical Properties

Form: liquid
Odour: amine-like

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Odour threshold:	Not determined due to potential health hazard by inhalation.	
Colour:	colourless to yellow	
pH value:	> 12 (100 g/l, 20 °C)	
Melting point:	-32 °C	
Freezing point:	No data available.	
Boiling point:	146 - 148 °C (1 mbar)	
Flash point:	178.5 °C	(Regulation 440/2008/EC, A.9, closed cup) (derived from flash point)
Flammability:	hardly combustible	
Lower explosion limit:	For liquids not relevant for classification and labelling. The lower explosion point may be 5 - 15 °C below the flash point.	
Upper explosion limit:	For liquids not relevant for classification and labelling.	
Autoignition:	268 °C	(Regulation 440/2008/EC, A.15)
SADT:	Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.	
Vapour pressure:	0.00005 hPa (20 °C)	(OECD Guideline 104)
Density:	1.0065 g/cm ³ (20 °C)	(OECD Guideline 109)
Relative density:	1.01 (20 °C)	(calculated)
Partitioning coefficient n- octanol/water (log Pow):	-1.25 (25 °C)	(OECD Guideline 107)
Self-ignition temperature:	Based on its structural properties the product is not classified as self- igniting.	
Thermal decomposition:	330 °C, > 540 kJ/kg (DSC (DIN 51007)) 170 °C, 30 kJ/kg (DSC (DIN 51007))	
Viscosity, dynamic:	13.0 mPa.s (20 °C) 6.47 mPa.s (40 °C)	(calculated (from kinematic viscosity)) (calculated (from kinematic viscosity))
Viscosity, kinematic:	12.9 mm ² /s (20 °C) 6.54 mm ² /s (40 °C)	(OECD Guideline 114) (OECD Guideline 114)
Particle size:	The substance / product is marketed or used in a non solid or granular form.	
Solubility in water:	(20 °C) miscible	
Miscibility with water:	(20 °C) miscible in all proportions	
Molar mass:	220.31 g/mol	
Evaporation rate:	Value can be approximated from Henry's Law Constant or vapor pressure.	

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10. Stability and Reactivity

Reactivity

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

Corrosion to metals:

Corrosive effects to metal are not anticipated. In the presence of water or moisture metal corrosion cannot be excluded.

Oxidizing properties:

not fire-propagating

Formation of

flammable gases:

Remarks:

Forms no flammable gases in the presence of water.

Chemical stability

The product is chemically stable.

Possibility of hazardous reactions

Strong exothermic reaction with acids. May react with oxidizing agents. Formation of explosive gas/air mixtures. If product is heated above decomposition temperature toxic vapours may be released.

Conditions to avoid

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

Incompatible materials

strong acids, oxidizing agents, copper alloys, brass

Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: carbon oxides, nitrogen oxides

Thermal decomposition:

330 °C, 2.5 K/min (DSC (DIN 51007))

170 °C, 2.5 K/min (DSC (DIN 51007))

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Ingestion may cause moderate to severe gastrointestinal irritation and ulceration including nausea and vomiting and pain.

Oral

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Type of value: LD50
Species: rat (male/female)
Value: 3,160 mg/kg (BASF-Test)
The value meets the highest applied test concentration.

Dermal

Type of value: LD50
Species: rat (male/female)
Value: > 2,150 mg/kg (similar to OECD guideline 402)
Limit concentration test only (LIMIT test).

Assessment other acute effects

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Irritation / corrosion

Assessment of irritating effects: Corrosive! Damages skin and eyes.

Skin

Species: rabbit
Result: Corrosive.
Method: BASF-Test

Eye

Species: rabbit
Result: irreversible damage

Sensitization

Assessment of sensitization: As the substance is corrosive, conducting sensitization studies is not feasible. The chemical structure suggests a sensitizing effect.

Species: in silico

Result: skin sensitizing

Method: (Q)SAR Model

The product has not been tested. The statement has been derived from the structure of the product.

Aspiration Hazard

No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: After repeated exposure the prominent effect is local irritation. No substance-specific organotoxicity was observed after repeated administration to animals.

Genetic toxicity

Assessment of mutagenicity: The substance was not mutagenic in bacteria. The substance was not mutagenic in mammalian cell culture.

Carcinogenicity

Assessment of carcinogenicity: No data available concerning carcinogenic effects.

Reproductive toxicity

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Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect. The results were determined in a Screening test (OECD 421/422).

Teratogenicity

Assessment of teratogenicity: In animal studies the substance did not cause malformations.

Other Information

No experimental evidence available for genotoxicity in vitro (Ames test negative).

Medical conditions aggravated by overexposure

Individuals with allergic history or pre-existing dermatitis should use extra precautions when handling this product. The substance may cause sensitization of the skin in particularly sensitive individuals.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. 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) > 215 - < 464 mg/l, *Leuciscus idus* (DIN 38412 Part 15, static)

The details of the toxic effect relate to the nominal concentration. The product will cause changes in the pH value of the test system. The result refers to an unneutralized sample. After neutralization, it is no longer toxic.

Aquatic invertebrates

EC50 (48 h) 218 mg/l, *Daphnia magna* (Directive 84/449/EEC, C.2, static)

The details of the toxic effect relate to the nominal concentration.

Aquatic plants

EC50 (72 h) > 500 mg/l (growth rate), *Scenedesmus subspicatus* (DIN 38412 Part 9, static)

The details of the toxic effect relate to the nominal concentration. The product will cause changes in the pH value of the test system. The result refers to an unneutralized sample.

EC10 (72 h) 31.1 mg/l (growth rate), *Scenedesmus subspicatus* (DIN 38412 Part 9, static)

The details of the toxic effect relate to the nominal concentration. The product will cause changes in the pH value of the test system. The result refers to an unneutralized sample.

Chronic toxicity to fish

No data available.

Chronic toxicity to aquatic invertebrates

EC10 (21 d) 24.6 mg/l, *Daphnia magna* (calculated, other)

No data available.

Assessment of terrestrial toxicity

No data available concerning terrestrial toxicity.

Microorganisms/Effect on activated sludge

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Toxicity to microorganisms

DIN 38412 Part 8 static

bacterium/EC50 (17 h): 221.9 mg/l

The details of the toxic effect relate to the nominal concentration. After neutralization, it is no longer toxic. The product will cause changes in the pH value of the test system. The result refers to an unneutralized sample.

Persistence and degradability

Assessment biodegradation and elimination (H₂O)

Not readily biodegradable (by OECD criteria). Poorly biodegradable.

Elimination information

< 10 % CO₂ formation relative to the theoretical value (60 d) (OECD 301B; ISO 9439; 92/69/EWG, C.4-C) (aerobic, activated sludge, domestic)

Enhanced conditions: prolonged incubation

99 % DOC reduction (74 d) (OECD Guideline 302 B) (aerobic, activated sludge, domestic)

Enhanced conditions: prolonged incubation

14 % CO₂ formation relative to the theoretical value (60 d) (ISO 9439, Annex D (Kombitest)) (aerobic, activated sludge, domestic)

Enhanced conditions: prolonged incubation

Assessment of stability in water

According to structural properties, hydrolysis is not expected/probable.

Information on Stability in Water (Hydrolysis)

According to structural properties, hydrolysis is not expected/probable.

Bioaccumulative potential

Assessment bioaccumulation potential

Significant accumulation in organisms is not to be expected.

Bioaccumulation potential

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Bioconcentration factor: 2.45, Fish (calculated)

Mobility in soil

Assessment transport between environmental compartments

The substance will not evaporate into the atmosphere from the water surface.

The data refer to the uncharged form of the substance.

Adsorption to solid soil phase is not expected.

Additional information

Adsorbable organically-bound halogen(AOX):

This product contains no organically-bound halogen.

Other ecotoxicological advice:

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Due to the pH-value of the product, neutralization is generally required before discharging sewage into treatment plants.

Do not release untreated into natural waters.

13. Disposal considerations

Waste disposal of substance:

Dispose of in accordance with national, state and local regulations. Do not discharge into drains/surface waters/groundwater.

Container disposal:

Empty containers with less than 1 inch of residue may be landfilled at a licensed facility. Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers. WARNING: Empty containers may still contain hazardous residue.

RCRA: D002

14. Transport Information

Land transport

USDOT

Hazard class: 8

Packing group: II

ID number: UN 2735

Hazard label: 8

Proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. (contains 4,7,10-TRIOXATRIDECANE-1,13-DIAMINE)

Sea transport

IMDG

Hazard class: 8

Packing group: II

ID number: UN 2735

Hazard label: 8

Marine pollutant: NO

Proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. (contains 4,7,10-TRIOXATRIDECANE-1,13-DIAMINE)

Air transport

IATA/ICAO

Hazard class: 8

Packing group: II

ID number: UN 2735

Hazard label: 8

Proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. (contains 4,7,10-TRIOXATRIDECANE-1,13-DIAMINE)

15. Regulatory Information

Federal Regulations

Registration status:

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Chemical TSCA, US released / listed

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

NFPA Hazard codes:

Health: 3 Fire: 1 Reactivity: 0 Special:

Assessment of the hazard classes according to UN GHS criteria (most recent version):

Acute Tox.	5 (oral)	Acute toxicity
Acute Tox.	5 (dermal)	Acute toxicity
Skin Corr.	1B	Skin corrosion
Skin Sens.	1	Skin sensitization
Eye Dam./Irrit.	1	Serious eye damage/eye irritation

16. Other Information

SDS Prepared by:

BASF NA Product Regulations

SDS Prepared on: 2024/10/04

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

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