

Safety data sheet

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BASF Safety data sheet according to the United Nations' Globally Harmonized System (UN GHS)

Date / Revised: 10.07.2024

Version: 7.0

Product: **Baxxodur® EC 310**

(ID no. 30345721/SDS_GEN_00/EN)

Date of print 28.08.2024

1. Identification

Product identifier

Baxxodur® EC 310

Chemical name: Polyetheramine

CAS Number: 39423-51-3

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

Relevant identified uses: Chemical used in synthesis and/or formulation of industrial products

Recommended use: Chemical

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

International emergency number:

Telephone: +49 180 2273-112

2. Hazards Identification

Classification of the substance or mixture

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According to UN GHS criteria

Aquatic Acute 2
Aquatic Chronic 2
Acute Tox. 4 (dermal)
Acute Tox. 4 (oral)
Skin Irrit. 2
Eye Dam. 1

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

Label elementsGlobally Harmonized System (GHS)

Pictogram:



Signal Word:

Danger

Hazard Statement:

H318	Causes serious eye damage.
H315	Causes skin irritation.
H302 + H312	Harmful if swallowed or in contact with skin.
H401	Toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280	Wear protective gloves, protective clothing and eye protection or face protection.
P273	Avoid release to the environment.
P270	Do not eat, drink or smoke when using this product.
P264	Wash contaminated body parts thoroughly after handling.

Precautionary Statements (Response):

P310	Immediately call a POISON CENTER or physician.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P361 + P364	Take off immediately all contaminated clothing and wash it before reuse.
P330	Rinse mouth.
P391	Collect spillage.

Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.
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According to UN GHS criteria

Hazard determining component(s) for labelling: Propylidynetrimethanol, propoxylated, reaction products with ammonia (> 1 < 6.5 mol PO)

Other hazards

According to UN GHS criteria

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

Substances

Chemical nature

amine, ether

Hazardous ingredients (GHS)

According to UN GHS criteria

Propylidynetrimethanol, propoxylated, reaction products with ammonia (> 1 < 6.5 mol PO)

Content (W/W): >= 90 % - <= 100 %	Acute Tox. 4 (dermal) Skin Irrit. 2
CAS Number: 39423-51-3	Eye Dam. 1
EC-Number: 500-105-6	Acute Tox. 4 (oral) Aquatic Acute 2 Aquatic Chronic 2 H318, H315, H302 + H312, H401, H411

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

Mixtures

Not applicable

4. First-Aid Measures

Description of first aid measures

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention. Immediately administer a corticosteroid from a controlled/metered dose inhaler.

On skin contact:

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

On contact with eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far

Hazards: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11. (Further) symptoms and / or effects are not known so far

Indication of any immediate medical attention and special treatment needed

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

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:

water spray, dry powder, foam, carbon dioxide

Special hazards arising from the substance or mixture

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

Special protective equipment:

Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes. Take off immediately all contaminated clothing. Information regarding personal protective measures, see section 8. Ensure adequate ventilation. Keep unprotected persons away.

Environmental precautions

Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

For large amounts: Pump off product.

For residues: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr). Dispose of absorbed material in accordance with regulations.

7. Handling and Storage**Precautions for safe handling**

Ensure thorough ventilation of stores and work areas.

Protection against fire and explosion:

Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities

Segregate from acids and acid forming substances.

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

Storage stability:

Keep container dry because product takes up the humidity of air.

8. Exposure Controls/Personal Protection**Exposure controls**Personal protective equipment

Respiratory protection:

Respiratory protection in case of vapour/aerosol release. Combination filter for gases/vapours of organic compounds and solid and liquid particles (f.e. EN 14387 Type A-P2)

Hand protection:

Chemical resistant protective gloves (EN ISO 374-1)

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1):

e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), polyvinylchloride (0.7 mm) and other

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

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.

Eye protection:

Tightly fitting safety goggles (splash 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. Avoid contact with the skin, eyes and clothing. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Hands and/or face should be washed before breaks and at the end of the shift. When using, do not eat, drink or smoke. Remove contaminated clothing. Store work clothing separately.

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

State of matter:	liquid	
Form:	liquid	
Colour:	yellowish	
Odour:	amine-like	
Odour threshold:		
	not determined	
Melting point:	< -20 °C	(Regulation 440/2008/EC, A.1)
Boiling point:	> 250 °C	
Flammability:	hardly combustible	(derived from flash point)
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.	
Flash point:	193 °C	(ASTM D93)
Auto-ignition temperature:	320 °C	(Regulation 440/2008/EC, A.15)
Thermal decomposition:	145 °C, 30 kJ/kg (DSC (DIN 51007)) 315 °C, > 340 kJ/kg (DSC (DIN 51007)) Thermal decomposition above the indicated temperature is possible. self-accelerating reaction	
SADT:	Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.	
pH value:	12,0 (100 g/l, 20 °C)	
Viscosity, kinematic:	110 mm ² /s (20 °C)	(Capillary viscometer)
Solubility in water:		(Regulation 440/2008/EC, A.6)
	562 g/l (20 °C, pH 12,7)	
Partitioning coefficient n-octanol/water (log Kow):	-1,13 (20 °C; pH value: 12,7)	(Regulation 440/2008/EC, A.8)
Vapour pressure:	6,82 hPa (20 °C) static	(Regulation 440/2008/EC, A.4)

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Density: 0,987 g/cm³
(20 °C)

Relative vapour density (air): > 1 (estimated)
(20 °C)
Heavier than air.

Particle characteristics

Particle size distribution: The substance / product is marketed or used in a non solid or granular form. -

9.2. Other information**Information with regard to physical hazard classes**Explosives

Explosion hazard: not explosive (Regulation 440/2008/EC, A.14)

Oxidizing properties

Fire promoting properties: not fire-propagating (Regulation 440/2008/EC, A.21)

Pyrophoric properties

Self-ignition temperature: Test type: Spontaneous self-ignition at room-temperature.
(Method: Regulation 440/2008/EC, A.13)

not self-igniting

Self-heating substances and mixtures

Self heating ability: not applicable, the product is a liquid

Substances and mixtures, which emit flammable gases in contact with water

Formation of flammable gases: (Regulation 440/2008/EC, A.12)

Forms no flammable gases in the presence of water.

Corrosion to metals

No data available. - In the presence of water or moisture metal corrosion cannot be excluded.

Other safety characteristics

pK_a: 10,25 (OECD Guideline 112)
(20 °C)

Hygroscopy: hygroscopic

Adsorption/water - soil: KOC: 15; log KOC: 1,18 (calculated)
The data refer to the charged form of the substance.

Surface tension: 52,8 mN/m (Regulation 440/2008/EC, A.5, Ring method)
(20 °C; 1 g/l)

SAPT-Temperature: Study scientifically not justified.

10. Stability and Reactivity**Reactivity**

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

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Corrosion to metals:	No data available. In the presence of water or moisture metal corrosion cannot be excluded.	
Formation of flammable gases:	Remarks:	Forms no flammable gases in the presence of water.
	Method:	Flammability (Contact with water)

Chemical stability

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

Possibility of hazardous reactions

Strong exothermic reaction with acids.

Conditions to avoid

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

Incompatible materials

Substances to avoid:
acids

Hazardous decomposition products

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

11. Toxicological Information

Information on toxicological effects

Acute toxicity

Assessment of acute toxicity:
Of moderate toxicity after single ingestion. Of moderate toxicity after short-term skin contact. The inhalation of a highly enriched/saturated vapor-air-mixture represents an unlikely acute hazard.

Experimental/calculated data:
LD50 rat (oral): 550 mg/kg (OECD Guideline 425)

rat (by inhalation): 8 h (IRT)
No mortality within the stated exposition time as shown in animal studies.

LD50 rat (dermal): > 1.000 mg/kg (OECD Guideline 402)
No mortality was observed.

Irritation

Assessment of irritating effects:

May cause severe damage to the eyes. Skin contact causes irritation.

Experimental/calculated data:

Skin corrosion/irritation rabbit: Slightly irritating. (OECD Guideline 404)

Skin corrosion/irritation In vitro assay: Non corrosive. (OECD Guideline 435)

Serious eye damage/irritation In vitro assay: irreversible damage (HET-CAM test in vitro)

Respiratory/Skin sensitization

Assessment of sensitization:

Skin sensitizing effects were not observed in animal studies.

Experimental/calculated data:

Buehler test guinea pig: Non-sensitizing. (similar to OECD guideline 406)

Germ cell mutagenicity

Assessment of mutagenicity:

The substance was not mutagenic in bacteria. The substance was not mutagenic in mammalian cell culture. The substance was not mutagenic in studies with mammals.

Carcinogenicity

Assessment of carcinogenicity:

No data available.

Reproductive toxicity

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).

Developmental toxicity

Assessment of teratogenicity:

No indications of a developmental toxic / teratogenic effect were seen in animal studies.

Specific target organ toxicity (single exposure)

Assessment of STOT single:

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

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

Assessment of repeated dose toxicity:

No adverse effects were observed after repeated dermal exposure in animal studies. After repeated exposure the prominent effect is local irritation.

Aspiration hazard

No aspiration hazard expected.

12. Ecological Information

Toxicity

Assessment of aquatic toxicity:

Acutely toxic for 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) > 100 mg/l, *Oncorhynchus mykiss* (OECD 203; ISO 7346; 84/449/EWG, C.1, static)

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

Aquatic invertebrates:

EC50 (48 h) 13,0 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, static)

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

Aquatic plants:

EC50 (72 h) 4,4 mg/l (growth rate), *Pseudokirchneriella subcapitata* (OECD Guideline 201, static)

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

No observed effect concentration (72 h) 1 mg/l (growth rate), *Pseudokirchneriella subcapitata* (OECD Guideline 201, static)

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

Microorganisms/Effect on activated sludge:

EC20 (30 min) approx. 130 mg/l, activated sludge, domestic (OECD Guideline 209, aerobic)

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

Chronic toxicity to fish:

No data available.

Chronic toxicity to aquatic invertebrates:

No data available.

Assessment of terrestrial toxicity:

No data available.

Persistence and degradability

Assessment biodegradation and elimination (H₂O):

Not readily biodegradable (by OECD criteria).

Elimination information:

< 5 % BOD of the ThOD (28 d) (OECD 301F; ISO 9408; 92/69/EWG, C.4-D) (aerobic, activated sludge, domestic)

< 10 % Specific analysis (60 d) (OECD Guideline 309) (aerobic, aerobic microorganisms)

Assessment of stability in water:

In contact with water the substance will hydrolyse slowly.

Information on Stability in Water (Hydrolysis):

$t_{1/2} > 120$ h, 3 % (50 °C, pH value 7), (OECD Guideline 111, pH 7)

Bioaccumulative potential

Assessment bioaccumulation potential:

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

Mobility in soil

Assessment transport between environmental compartments:

Volatility: The substance will not evaporate into the atmosphere from the water surface. The data refer to the uncharged form of the substance.

Adsorption in soil: Adsorption to solid soil phase is not expected. The data refer to the charged form of the substance.

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 fulfill the criteria for PBT (Persistent/bioaccumulative/toxic) and vPvB (very persistent/very bioaccumulative).

Other adverse effects

The substance is not listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

Additional information

Adsorbable organically-bound halogen (AOX):

This product contains no organically-bound halogen.

13. Disposal Considerations

Waste treatment methods

Incinerate in suitable incineration plant, observing local authority regulations.

A waste code in accordance with the European waste catalog (EWC) cannot be specified, due to dependence on the usage.

The waste code in accordance with the European waste catalog (EWC) must be specified in cooperation with disposal agency/manufacturer/authorities.

Contaminated packaging:

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Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

14. Transport Information

Land transport

ADR

UN number or ID number: UN3082
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PROPYLIDYNETRIMETHANOL, PROPOXYLATED, REACTION PRODUCTS WITH AMMONIA)

Transport hazard class(es): 9, EHSM
Packing group: III
Environmental hazards: yes
Special precautions for user: None known

RID

UN number or ID number: UN3082
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PROPYLIDYNETRIMETHANOL, PROPOXYLATED, REACTION PRODUCTS WITH AMMONIA)

Transport hazard class(es): 9, EHSM
Packing group: III
Environmental hazards: yes
Special precautions for user: None known

Inland waterway transport

ADN

UN number or ID number: UN3082
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PROPYLIDYNETRIMETHANOL, PROPOXYLATED, REACTION PRODUCTS WITH AMMONIA)

Transport hazard class(es): 9, EHSM
Packing group: III
Environmental hazards: yes
Special precautions for user: None known

Transport in inland waterway vessel

Not evaluated

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Sea transport

IMDG

UN number or ID number: UN 3082
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PROPYLIDYNETRIMETHANOL, PROPOXYLATED, REACTION PRODUCTS WITH AMMONIA)

Transport hazard class(es): 9, EHSM
Packing group: III
Environmental hazards: yes
Marine pollutant: YES
Special precautions for user: EmS: F-A; S-F

Air transport

IATA/ICAO

UN number or ID number: UN 3082
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PROPYLIDYNETRIMETHANOL, PROPOXYLATED, REACTION PRODUCTS WITH AMMONIA)

Transport hazard class(es): 9, EHSM
Packing group: III
Environmental hazards: yes
Special precautions for user: None known

Maritime transport in bulk according to IMO instruments

Maritime transport in bulk is not intended.

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

Not applicable

16. Other Information

Work limitations for pregnant woman and for woman nursing babies should be observed. Work limitations for youth should be observed.

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

Aquatic Acute	Hazardous to the aquatic environment - acute
Aquatic Chronic	Hazardous to the aquatic environment - chronic
Acute Tox.	Acute toxicity

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Skin Irrit.	Skin irritation
Eye Dam.	Serious eye damage
H318	Causes serious eye damage.
H315	Causes skin irritation.
H302 + H312	Harmful if swallowed or in contact with skin.
H401	Toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

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.

Vertical lines in the left hand margin indicate an amendment from the previous version.