

Safety data sheet

Page: 1/13

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

Date / Revised: 10.10.2023

Version: 6.0

Product: **n-HEXYL GLYCOL**

(ID no. 30034797/SDS_GEN_00/EN)

Date of print 13.10.2025

1. Identification

Product identifier

n-HEXYL GLYCOL

Chemical name: 2-hexyloxyethanol

INDEX-Number: 603-178-00-3

CAS Number: 112-25-4

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

Relevant identified uses: Chemical

Details of the supplier of the safety data sheet

Company:

BASF SE

67056 Ludwigshafen

GERMANY

Operating Division Petrochemicals

Telephone: +49 621 60-42151

E-mail address: sds-petrochemicals@basf.com

Emergency telephone number

International emergency number:

Telephone: +49 180 2273-112

2. Hazards Identification

Classification of the substance or mixture

According to UN GHS criteria

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

Date / Revised: 10.10.2023

Version: 6.0

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Flam. Liq. 4
 Acute Tox. 4 (oral)
 Acute Tox. 3 (dermal)
 Skin Corr./Irrit. 1B
 Eye Dam./Irrit. 1

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

Label elements

Globally Harmonized System (GHS)

Pictogram:



Signal Word:

Danger

Hazard Statement:

H227	Combustible liquid.
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.

Precautionary Statements (Prevention):

P280	Wear protective gloves, protective clothing and eye protection or face protection.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust or mist.
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.
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.
P361 + P364	Take off immediately all contaminated clothing and wash it before reuse.
P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P370 + P378	In case of fire: Use water spray, dry powder, foam or carbon dioxide for extinction.

Precautionary Statements (Storage):

P405	Store locked up.
P403	Store in a well-ventilated place.

Precautionary Statements (Disposal):

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

Date / Revised: 10.10.2023

Version: 6.0

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

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.

See section 12 - Results of PBT and vPvB assessment.

3. Composition/Information on Ingredients

Substances

Chemical nature

2-Hexyloxyethanol (Content (W/W): > 98,5 %)
 CAS Number: 112-25-4
 EC-Number: 203-951-1
 INDEX-Number: 603-178-00-3

Hazardous ingredients (GHS)

According to UN GHS criteria

2-Hexyloxyethanol

Content (W/W): > 98,5 % - < 99,1 %	Flam. Liq. 4
CAS Number: 112-25-4	Acute Tox. 4 (oral)
EC-Number: 203-951-1	Acute Tox. 3 (dermal)
INDEX-Number: 603-178-00-3	Skin Corr./Irrit. 1B
	Eye Dam./Irrit. 1
	H227, H311, H302, H314

2-(2-Hexyloxyethoxy)ethanol

Content (W/W): >= 0,03 % - <= 0,28 %	Acute Tox. 5 (oral)
CAS Number: 112-59-4	Acute Tox. 4 (dermal)
EC-Number: 203-988-3	Eye Dam./Irrit. 1
INDEX-Number: 603-175-00-7	STOT SE 3 (drowsiness and dizziness)
	Aquatic Acute 3
	H318, H312, H303, H336, H402

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

If not breathing, give artificial respiration.

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately 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:

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: 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.

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:

dry powder, water spray, carbon dioxide, foam

Unsuitable extinguishing media for safety reasons:

water jet

Additional information:

Use extinguishing measures to suit surroundings.

Special hazards arising from the substance or mixture

Flammable liquid Cool endangered containers with water-spray. See SDS section 7 - Handling and storage.

Advice for fire-fighters

Special protective equipment:

Wear a self-contained breathing apparatus. Special protective equipment for firefighters

Further information:

Evacuate area of all unnecessary personnel. Fight fire from maximum distance.

Extend fire extinguishing measures to the surroundings. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental Release Measures

High risk of slipping due to leakage/spillage of product.

Release of substance/product can cause fire or explosion. Shut off or stop source of leak. Shut off or stop released substance/product under safe conditions.

Pack in tightly closed containers for disposal.

Personal precautions, protective equipment and emergency procedures

Handle in accordance with good industrial hygiene and safety practice.

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

Environmental precautions

Discharge into the environment must be avoided.

Methods and material for containment and cleaning up

Pick up with suitable appliance and dispose of. 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

Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:

Avoid all sources of ignition: heat, sparks, open flame. Ground all transfer equipment properly to prevent electrostatic discharge.

Conditions for safe storage, including any incompatibilities

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

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.

8. Exposure Controls/Personal Protection

Exposure controls

Personal protective equipment

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. 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 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):

butyl rubber (butyl) - 0.7 mm coating thickness

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

Avoid contact with the skin, eyes and clothing. Wearing of closed work clothing is required additionally to the stated personal protection equipment.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Form:	liquid	
Colour:	colourless, clear	
Odour:	ether-like	
Odour threshold:	not determined	
pH value:	neutral	
Melting point:	-42 °C (1.013 hPa)	
Boiling range:	200 - 212 °C (1.013,3 hPa)	
Flash point:	91,5 °C	(ISO 2719, closed cup)
Evaporation rate:	Value can be approximated from Henry's Law Constant or vapor pressure.	
Flammability:	Combustible liquid.	(derived from flash point)

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(ID no. 30034797/SDS_GEN_00/EN)

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Lower explosion limit:	0,9 %(V) (82,85 °C) The lower explosion point of the substance/mixture has been determined. The explosion point describes the temperature of a flammable liquid at which the concentration of the saturated vapour mixed with air equals the lower explosion limit., Literature data.	
Upper explosion limit:	For liquids not relevant for classification and labelling.	
Ignition temperature:	225 °C	(DIN 51794)
Vapour pressure:	0,1 hPa (22,9 °C) dynamic	(OECD Guideline 104)
Density:	0,8875 g/cm ³ (20 °C) Literature data.	
Relative density:	0,8875 (20 °C)	
Relative vapour density (air):	5,04 (20 °C) Heavier than air.	(calculated)
Solubility in water:	9,460 g/l (20 °C)	
Solubility (qualitative) solvent(s):	organic solvents soluble	
Partitioning coefficient n-octanol/water (log K _{ow}):	1,97 (25 °C)	
Self ignition:	Based on its structural properties the product is not classified as self-igniting.	Test type: Spontaneous self-ignition at room-temperature.
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.	
Viscosity, dynamic:	4,4 mPa.s (20 °C)	
Explosion hazard:	Based on the chemical structure there is no indication of explosive properties.	
Fire promoting properties:	Based on its structural properties the product is not classified as oxidizing.	

Other information

Self heating ability:	not applicable, the product is a liquid	
Miscibility with water:	partly miscible	
pK _A :	The substance does not dissociate.	
Adsorption/water - soil:	KOC: 10; log KOC: 1	(calculated)

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(ID no. 30034797/SDS_GEN_00/EN)

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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.

Molar mass:

146,23 g/mol

10. Stability and Reactivity

Reactivity

| When heated can give off ignitable vapours.

Corrosion to metals: No corrosive effect on metal.

Formation of

Remarks:

flammable gases:

Forms no flammable gases in the presence of water.

Chemical stability

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

Possibility of hazardous reactions

Reacts with light metals, with evolution of hydrogen. Reacts with strong oxidizing agents.

Conditions to avoid

No special precautions other than good housekeeping of chemicals.

Incompatible materials

Substances to avoid:

strong oxidizing agents

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 pronounced toxicity after short-term skin contact.

Virtually nontoxic by inhalation.

Experimental/calculated data:

LD50 rat (oral): 738 mg/kg (other)

LC0 rat (by inhalation): > 131,58 ppm 6 h (other)

No mortality within the stated exposition time as shown in animal studies. The vapour was tested.

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

Date / Revised: 10.10.2023

Version: 6.0

Product: **n-HEXYL GLYCOL**

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Date of print 13.10.2025

LD50 rabbit (dermal): 757,35 mg/kg (other)

Irritation

Assessment of irritating effects:

Corrosive! Damages skin and eyes.

Experimental/calculated data:

Skin corrosion/irritation rabbit: Corrosive. (other)

The European Union (EU) has classified this substance with 'Causes burns.'

Serious eye damage/irritation rabbit: irreversible damage (OECD Guideline 405)

Respiratory/Skin sensitization

Assessment of sensitization:

As the substance is corrosive, conducting sensitization studies is not feasible.

Germ cell mutagenicity

Assessment of mutagenicity:

The substance was not mutagenic in bacteria. The substance was not mutagenic in mammalian cell culture.

Carcinogenicity

Assessment of carcinogenicity:

The whole of the information assessable provides no indication of a carcinogenic effect.

Reproductive toxicity

Assessment of reproduction toxicity:

The results of animal studies gave no indication of a fertility impairing effect. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

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:

not applicable

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

Assessment of repeated dose toxicity:

After repeated exposure the prominent effect is local irritation. The substance may cause damage to the liver after repeated inhalation of high doses.

Aspiration hazard

not applicable

12. Ecological Information

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) 140 mg/l, Pimephales promelas (OECD Guideline 203, static)
Nominal concentration.

Aquatic invertebrates:

EC50 (48 h) 145 mg/l, Daphnia magna (DIN 38412 Part 11, static)
Nominal concentration.

Aquatic plants:

EC50 (72 h) 198 mg/l (growth rate), Scenedesmus subspicatus (DIN 38412 Part 9, static)
Nominal concentration.

Microorganisms/Effect on activated sludge:

EC20 (30 min) 750 mg/l, activated sludge, domestic, non-adapted (DIN EN ISO 8192-OECD 209-88/302/EEC, P. C, aquatic)
Nominal concentration.

Chronic toxicity to fish:

Study scientifically not justified.

Chronic toxicity to aquatic invertebrates:

Study scientifically not justified.

Assessment of terrestrial toxicity:

No data available concerning terrestrial toxicity.

Persistence and degradability

Assessment biodegradation and elimination (H₂O):

Readily biodegradable (according to OECD criteria).

Elimination information:

97 % CO₂ formation relative to the theoretical value (20 d) (OECD 301B; ISO 9439; 92/69/EWG, C.4-C) (aerobic)

Assessment of stability in water:

Substance is readily biodegradable, therefore hydrolysis is not expected to be relevant.

Bioaccumulative potential

Assessment bioaccumulation potential:

No significant accumulation in organisms is expected as a result of the distribution coefficient of n-octanol/water (log Pow).

Bioaccumulation potential:

No data available.

Mobility in soil

Assessment transport between environmental compartments:

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

Adsorption in soil: Adsorption to solid soil phase is not expected.

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). Self classification

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.

Other ecotoxicological advice:

Do not release untreated into natural waters.

13. Disposal Considerations

Waste treatment methods

Must be disposed of or incinerated in accordance with local regulations.

Contaminated packaging:

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: UN2922

UN proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (ETHYLENEGLYCOL MONOHEXYLETHYER)

Transport hazard class(es): 8, 6.1

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

Date / Revised: 10.10.2023

Version: 6.0

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Packing group: II
Environmental hazards: no
Special precautions for user: Tunnel code: E

RID

UN number or ID number: UN2922
UN proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (ETHYLENEGLYCOL MONOHEXYLETHER)

Transport hazard class(es): 8, 6.1
Packing group: II
Environmental hazards: no
Special precautions for user: None known

Inland waterway transport**ADN**

UN number or ID number: UN2922
UN proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (ETHYLENEGLYCOL MONOHEXYLETHER)

Transport hazard class(es): 8, 6.1
Packing group: II
Environmental hazards: no
Special precautions for user: None known

Transport in inland waterway vessel

Not evaluated

Sea transport**IMDG**

UN number or ID number: UN 2922
UN proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (ETHYLENEGLYCOL MONOHEXYLETHER)

Transport hazard class(es): 8, 6.1
Packing group: II
Environmental hazards: no
Marine pollutant: NO
Special precautions for user: EmS: F-A; S-B

Air transport**IATA/ICAO**

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

Date / Revised: 10.10.2023

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(ID no. 30034797/SDS_GEN_00/EN)

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UN number or ID number: UN 2922
 UN proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (ETHYLENEGLYCOL MONOHEXYLETHER)

Transport hazard class(es): 8, 6.1
 Packing group: II
 Environmental hazards: No Mark as dangerous for the environment is needed
 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

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

Flam. Liq.	Flammable liquids
Acute Tox.	Acute toxicity
Skin Corr./Irrit.	Skin corrosion/irritation
Eye Dam./Irrit.	Serious eye damage/eye irritation
STOT SE	Specific target organ toxicity — single exposure
Aquatic Acute	Hazardous to the aquatic environment - acute
H227	Combustible liquid.
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H312	Harmful in contact with skin.
H303	May be harmful if swallowed.
H336	May cause drowsiness or dizziness.
H402	Harmful to aquatic life.

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.