

SAFETY DATA SHEET (SDS)

in accordance with Regulation (EC) No 1907/2006 (REACH), Annex II — Regulation (EU) 2020/878

Date: 18.07.2026 | Version: 1 | EN

Eter dietylowy

ethoxyethane

CAS 60-29-7

C₄H₁₀O

EC 200-467-2



MOLAR MASS

74.12

LOGP

0.89

HAZARD CLASSIFICATION (GHS / CLP)



Danger

H224

H302

H336

EUH019

EUH066

1. Identification of the substance/mixture and of the company/undertaking

1.1 Substance name	Eter dietylowy
1.1 IUPAC name	ethoxyethane
1.1 CAS number	60-29-7
1.1 EC number	200-467-2
1.1 PubChem CID	3283
1.1 InChIKey	RTZKZFJDLAIYFH-UHFFFAOYSA-N
1.1 SMILES	CCOCC
1.1 Molecular formula	C ₄ H ₁₀ O ^[7]
1.1 Molar mass	74.12 g/mol ^[7]
1.1 Exact mass	—

1.2 Uses

For laboratory and research purposes. Not for use in the production of food, medicines or cosmetics without appropriate authorisation.

1.3 Details of the supplier

Name	ADVANCED CHEMISTRY R&D SOLUTIONS
Address	ul. Juliana Przybosa 8, 21-400 Łuków, Poland
Tax ID (NIP)	
Tel.	
E-mail	
Website	

1.4 Emergency telephone number

Emergency telephone

+48 42 631 47 24

Toxicological Information Centre (CIT), Łódź — available 24/7

2. Hazards identification



Danger

Hazard statements (H) ^{[3][4][9]}

H224	Extremely flammable liquid and vapour
H302	Harmful if swallowed
H336	May cause drowsiness or dizziness
EUH019	May form explosive peroxides.
EUH066	Repeated exposure may cause skin dryness or cracking.

Precautionary statements (P) ^{[3][4][9]}

P203	Obtain, read and follow all safety instructions before use
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P233	Keep container tightly closed
P240	Ground and bond container and receiving equipment
P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P264	Wash thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P271	Use only outdoors or in a well-ventilated area
P280	Wear protective gloves/protective clothing/eye protection/face protection
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/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
P330	Rinse mouth
P370+P378	In case of fire: Use appropriate media to extinguish
P403+P235	Store in a well-ventilated place: Keep cool
P403+P233	Store in a well-ventilated place: Keep container tightly closed
P501	Dispose of contents/container to an approved waste collection point

3. Composition/information on ingredients

Substance type	pure substance
CAS Number	60-29-7
EC number	200-467-2
Molecular formula	C ₄ H ₁₀ O
Concentration	≥99% (typical reagent-grade purity — to be confirmed by the supplier's specification)

4. First aid measures



Inhalation

Move the affected person to fresh air. Keep at rest. If not breathing: artificial respiration (qualified personnel only). [\[1\]](#)[\[2\]](#)[\[15\]](#)

Skin contact

Remove contaminated clothing. Rinse skin with soap and water (min. 15 minutes). [\[1\]](#)[\[2\]](#)[\[15\]](#)

Eye contact

Rinse eyes with running water (min. 15 minutes). Remove contact lenses if possible. If irritation persists — consult an ophthalmologist. [\[1\]](#)[\[2\]](#)[\[15\]](#)

Ingestion

Do NOT induce vomiting (unless directed by a physician). Rinse mouth with water. Never give anything by mouth to an unconscious person. Poison Centre Łódź: +48 42 631 47 24 (24/7). Emergency number: 112. [\[1\]](#)[\[2\]](#)[\[15\]](#)

Symptoms and effects

nausea, vomiting, diarrhoea; cough, shortness of breath, headache, dizziness. [\[3\]](#)[\[9\]](#)

Notes for physician

Symptomatic treatment. No specific antidote. [\[1\]](#)[\[2\]](#)[\[15\]](#)

Emergency numbers: CIT Łódź: +48 42 631 47 24 (24/7) | Emergency: 112

5. Firefighting measures

Suitable extinguishing media	Alcohol-resistant foam, carbon dioxide (CO ₂), dry chemical powder, water spray/mist. [1] [2] [15]
Unsuitable extinguishing media	Full/compact water jet (splashes and spreads the burning liquid, which floats on water). [1] [2] [15]
Specific hazards	Thermal decomposition products: CO, CO ₂ . [16]
Advice for firefighters	Use self-contained breathing apparatus (SCBA). Full protective suit. [1] [2] [15]
Flash Point	-45°C
Auto-ignition temperature	160°C

6. Accidental release measures

Personal precautions	Use personal protective equipment (see Section 8). Avoid breathing vapours. [1] [2] [15]
Environmental precautions	Prevent entry into sewers, groundwater and surface water. [1] [2] [15]
Methods for containment and cleaning up	Contain the spill with a barrier. Absorb with inert material (sand, vermiculite, diatomaceous earth). Collect into sealed, labelled containers. Do not release into drains. Remove ignition sources; use non-sparking tools. [1] [2] [15]
Related sections	8; 13

7. Handling and storage

Precautions	Work in a fume hood or with adequate ventilation. No eating, drinking or smoking in the work area. [1] [2] [15]
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Storage temperature	Store at room temperature (15-25°C) or as indicated on the label. ^{[1][2][15]}
Humidity	Store in a dry place (<60% RH). ^{[1][2][15]}
Light	Protect from direct sunlight. ^{[1][2][15]}
Incompatible materials	Strong oxidizers, Ignition sources, open flames. ^[16]

8. Exposure controls/personal protection

8.1 Control parameters

OEL — NDS (Poland)	NDS = 300 mg/m ³ (TWA) · NDSch = 600 mg/m ³ (STEL) — Polish MRPiPS Regulation (NDS/NDSch list) ^[20]
OEL (EU)	OEL-TWA: 100 ppm (308 mg/m ³) · OEL-STEL: 200 ppm (616 mg/m ³) — IOELV 2000/39/EC ^[10]
DNEL	No data available.
PNEC	No data available.

8.2 Personal protective equipment (PPE) ^{[5][6][17]}

 Chemical-resistant protective gloves EN ISO 374-1:2016+A1:2018 nitrile (min. 0.11 mm)	 Closed safety spectacles or goggles EN ISO 16321-1:2022 / EN 166:2001	 Respiratory protection EN 14387:2004+A1:2008 type AX filter (low-boiling organic vapours)	 Closed safety footwear with toe protection EN ISO 20345:2022 (S2/S3)
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9. Physical and chemical properties

Property (item 9.1)	Value	Source
Physical state	Liquid	
Colour	Colorless, volatile, mobile liquid ^[7]	
Odour	Sweetish, pungent odor ^[7]	
pH (1% aqueous solution)	No data available.	
Melting point	-116.3°C ^[8]	
Boiling point	34.6°C ^[8]	
Flash point	-45°C	
Flammability	Flam. Liq. 1 (H224) ^{[3][9]}	
Lower and upper explosion limit	No data available.	
Density (20°C)	0.714 g/cm ³ ^[8]	
Vapour pressure	71.6 kPa (537 mmHg, 25°C) ^[8]	
Relative vapour density	No data available.	
Dynamic viscosity	0.224 mPa·s ^[8]	
Kinematic viscosity	No data available.	
Refractive index n_D²⁰	1.3526	
Auto-ignition temperature	160°C	

Property (item 9.1)	Value	Source
Decomposition temperature	Not applicable	
Surface Tension	17 mN/m ^[8]	
Water solubility (20°C)	69 g/L, 20°C	
Particle characteristics	Not applicable	
Partition coefficient n-octanol/water (log value)	0.89	
TPSA	9.2 Å ² ^[7]	
HBD / HBA	No data available. / No data available.	
Rotatable bonds	No data available.	
Molar mass	74.12 g/mol ^[7]	
Molecular formula	C ₄ H ₁₀ O ^[7]	

10. Stability and reactivity

Reactivity	Reaktywny — tworzy nadtlarki (patrz niebezpieczne reakcje). ^[16]
Chemical stability	May form unstable, explosive organic peroxides during storage (contact with air/light, after opening the container). ^[16]
Hazardous reactions	Formation of explosive peroxides (EUH019). Concentration of peroxides during distillation/evaporation to dryness risks explosion. Check for the presence of peroxides before use/distillation; store under inhibitor, protect from light and air. ^[16]
Conditions to avoid	Contact with air and light, prolonged storage, evaporation to dryness. ^[16]
Incompatible materials	Strong oxidizers, Ignition sources, open flames. ^[16]
Decomposition products	Thermal decomposition products: CO, CO ₂ . ^[16]

11. Toxicological information

LD50 (oral)	No data available.
LD50 (dermal)	No data available.
LC50 (inhalation)	No data available.
Skin irritation	Not classified (no harmonised classification in CLP Annex VI) ^{[3][9]}
Eye irritation	Not classified (no harmonised classification in CLP Annex VI) ^{[3][9]}
Sensitisation	No data available.
Mutagenicity	Not classified (no harmonised classification in CLP Annex VI) ^{[3][9]}
Carcinogenicity	No data available.
IARC classification (carcinogenicity)	No individual IARC monograph for this CAS — this is not confirmation of the absence of carcinogenicity (cf. CLP/GHS classification in section 2).
Reproductive toxicity	Not classified (no harmonised classification in CLP Annex VI) ^{[3][9]}
STOT — single exposure	Category 3 (H336): May cause drowsiness or dizziness. ^{[3][9]}
STOT — repeated exposure	Not classified (no harmonised classification in CLP Annex VI) ^{[3][9]}
Aspiration hazard	Not classified (no harmonised classification in CLP Annex VI) ^{[3][9]}

12. Ecological information

Aquatic toxicity	No data available.
Persistence / biodegradability	No data available.
Bioaccumulative potential	log Kow = 0.89. Low bioaccumulation potential (log Kow < 4.5 — PBT/vPvB screening criterion per ECHA Guidance R.11). [18][19]
Mobility in soil	No data available.
PBT/vPvB assessment	Insufficient data to assess PBT/vPvB.
Endocrine disrupting properties	No information.

13. Disposal considerations

Disposal method	Hand over for disposal to licensed contractors in accordance with national and local regulations. Do not discharge into sewers.
Waste code (EWC)	16 05 06* — Laboratory and analytical chemicals (e.g. chemical reagents) containing hazardous substances. Verification of the EWC code required. [14]
Packaging	Cleaned packaging may be recycled. Contaminated packaging must be treated as hazardous waste.

14. Transport information



Class 3 — Flammable liquids

UN number	UN 1155 [13]
Proper shipping name	DIETHYL ETHER [13]
Transport hazard class	3 — Flammable liquids [13]
Packing Group	I [13]
Environmental hazard	Not classified as environmentally hazardous for transport (no H400/H410/H411 in CLP Annex VI; no marine pollutant mark required) [3]
Special precautions	Handle as dangerous goods according to the assigned class (ADR/IMDG/IATA); apply the precautions appropriate to that class.
CN/HS code	CN/HS code: verification required in the Eurostat Combined Nomenclature.
Notes	Dangerous goods ADR/IMDG/IATA. Extremely flammable (H224), forms explosive peroxides (EUH019).

15. Regulatory information

SVHC status	SVHC status not verified against the available dataset — check the current ECHA Candidate List; do not assume absence. [1]
REACH Annex XIV	Not verified against the ECHA Authorisation List — check REACH Annex XIV. [1]
REACH Annex XVII	Not confirmed in the available Annex XVII dataset — verify against the current ECHA list before placing on the market; do not assume absence of restriction. [1]
Verification date	2026-07-18
Drug precursor (EU)	Category 3 drug precursor under Regulation (EC) No 273/2004 (Annex I). Intra-EU trade requires no operator licence or registration. Obligations: transaction documentation and notification of suspicious transactions to the competent authorities (Art. 8). Trade with third countries (import/export) is governed by Regulation (EC) No 111/2005: transactions are subject to documentation and export to certain countries requires a pre-export notification; verify the requirements for the country of destination. [11][12]

16. Other information

Legal status of the harmonised classification: CLP — Regulation (EC) No 1272/2008, Annex VI (current ECHA harmonised inventory, as at the issue date of this sheet). Entries entering into force after 18.07.2026 were omitted as future (not yet applicable).

Data aggregated automatically from public reference databases (PubChem, ECHA, NIST and others).

Full text of H statements

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Full text of P statements

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P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P264	Wash thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P271	Use only outdoors or in a well-ventilated area
P280	Wear protective gloves/protective clothing/eye protection/face protection
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/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
P330	Rinse mouth
P370+P378	In case of fire: Use appropriate media to extinguish
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P501	Dispose of contents/container to an approved waste collection point

Abbreviations

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging (Reg. (EC) 1272/2008)
CMR	Carcinogenic, Mutagenic, toxic to Reproduction
DNEL	Derived No-Effect Level
EC	European Community number
EPI	Personal protective equipment
GHS	Globally Harmonized System
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods Code
SDS	Safety Data Sheet

LC50	Lethal Concentration, 50%
LD50	Lethal Dose, 50%
NDS	Maximum admissible concentration (workplace, PL)
NDSCh	Short-term exposure limit (PL)
OEL	Occupational Exposure Limit
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals (Reg. (EC) 1907/2006)
STOT	Specific Target Organ Toxicity
SVHC	Substance of Very High Concern
TPSA	Topological Polar Surface Area
vPvB	very Persistent and very Bioaccumulative

Version history

v1 (18.07.2026)	Prepared on the basis of the ECHA harmonised classification (Annex VI to CLP, ATP 23).
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References

- [1] EP and Council. Reg.(EC) No 1907/2006 (REACH). Art.31, Annex II. OJ EU L 396/2006. URL: <https://eur-lex.europa.eu/eli/reg/2006/1907/oj> Accessed: 2026-07-18.
- [2] European Commission. Reg.(EU) 2020/878 — amending Annex II REACH. OJ EU L 203/2020. From 01.01.2023. URL: <https://eur-lex.europa.eu/eli/reg/2020/878/oj> Accessed: 2026-07-18.
- [3] EP and Council. Reg.(EC) 1272/2008 (CLP) + ATP 23. OJ EU L 353/2008. URL: <https://eur-lex.europa.eu/eli/reg/2008/1272/oj> Accessed: 2026-07-18.
- [4] United Nations. GHS Rev.9. ST/SG/AC.10/30/Rev.9. New York and Geneva: United Nations, 2021. URL: <https://unece.org/transport/dangerous-goods/ghs-rev9-2021> Accessed: 2026-07-18.
- [5] ISO. ISO 7010:2019 — Graphical symbols. Safety signs. URL: <https://www.iso.org/standard/72424.html> Accessed: 2026-07-18.
- [6] ISO. ISO 3864-1:2011 — Safety colours and safety signs. URL: <https://www.iso.org/standard/51021.html> Accessed: 2026-07-18.
- [7] PubChem. National Center for Biotechnology Information (NIH/NLM), chemical compound database. URL: <https://pubchem.ncbi.nlm.nih.gov/compound/3283> Accessed: 2026-07-18.
- [8] Reid, R.C., Prausnitz, J.M., Poling, B.E. The Properties of Gases and Liquids. 4th ed. New York: McGraw-Hill, 1987.
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- [11] European Parliament and Council. Regulation (EC) No 273/2004 on drug precursors, Annex I. OJ EU L 47/1. URL: <https://eur-lex.europa.eu/eli/reg/2004/273/oj> Accessed: 2026-07-18.
- [12] Council of the European Union. Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Union and third countries in drug precursors. OJ EU L 22/1. URL: <https://eur-lex.europa.eu/eli/reg/2005/111/oj> Accessed: 2026-07-18.
- [13] UNECE. European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), 2025 edition (ECE/TRANS/352). Geneva: United Nations. URL: <https://unece.org/adr> Accessed: 2026-07-18.
- [14] European Commission. Decision 2000/532/EC establishing a list of wastes (European Waste Catalogue). OJ EU L 226/3. URL: <https://eur-lex.europa.eu/eli/dec/2000/532/oj> Accessed: 2026-07-18.
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- [17] CEN. Personal protective equipment standards (EN ISO 374-1, EN 166, EN 149, EN 14387, EN ISO 20345). Brussels: European Committee for Standardization.
- [18] ECHA. Guidance on Information Requirements and Chemical Safety Assessment, Chapter R.11: PBT/vPvB Assessment. Helsinki: European Chemicals Agency. URL: <https://echa.europa.eu/guidance-documents/guidance-on-information-requirements-and-chemical-safety-assessment> Accessed: 2026-07-18.
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- [20] MRIPS Regulation of 12.06.2018 — NDS/NDN. Journal of Laws 2024 item 1017. URL: <https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU20240001017> Accessed: 2026-07-18.

External links

NIST: <https://webbook.nist.gov/cgi/cbook.cgi?ID=60-29-7>
 ChEMBL: https://www.ebi.ac.uk/chembl/compound_report_card/CHEMBL16264

NFPA 704 (supplementary information — NFPA/USA system; not a required element of an EU safety data sheet under REACH Annex II)



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Author: www.MolGod.org — platform for automated safety data sheets (SDS).

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