

# SAFETY DATA SHEET (SDS)

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

Date: 15.07.2026 | Version: 2 | EN

## (2R,3S,4S,5R,6S)-2-(hydroxymethyl)-6-(4-hydroxyphenoxy)oxane-3,4,5-triol

(2R,3S,4S,5R,6S)-2-(hydroxymethyl)-6-(4-hydroxyphenoxy)oxane-3,4,5-triol

CAS 497-76-7

C<sub>12</sub>H<sub>16</sub>O<sub>7</sub>



MOLAR MASS  
272.25

LOGP  
-0.70  
(XLogP3,  
PubChem)

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

|                       |                                                                          |
|-----------------------|--------------------------------------------------------------------------|
| 1.1 Substance name    | —                                                                        |
| 1.1 IUPAC name        | (2R,3S,4S,5R,6S)-2-(hydroxymethyl)-6-(4-hydroxyphenoxy)oxane-3,4,5-triol |
| 1.1 CAS number        | 497-76-7                                                                 |
| 1.1 EC number         | No data                                                                  |
| 1.1 PubChem CID       | 440936                                                                   |
| 1.1 InChIKey          | BJRNKVDFDLYUGJ-RMPHRYRLSA-N                                              |
| 1.1 SMILES            | <chem>C1=CC(=CC=C1O)O[C@H]2[C@@H]([C@H]([C@@H]([C@H](O2)CO)O)O)O</chem>  |
| 1.1 Molecular formula | C <sub>12</sub> H <sub>16</sub> O <sub>7</sub>                           |
| 1.1 Molar mass        | 272.25 g/mol                                                             |
| 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

Supplier details have not been configured (MOL-GOD → Label generator → Producer details).

#### 1.4 Emergency telephone number

Emergency telephone +48 42 657 99 00

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

### 2. Hazards identification

### 3. Composition/information on ingredients

|                   |                                                |
|-------------------|------------------------------------------------|
| Substance type    | pure substance                                 |
| CAS Number        | 497-76-7                                       |
| Molecular formula | C <sub>12</sub> H <sub>16</sub> O <sub>7</sub> |
| Concentration     | >=99%                                          |

### 4. First aid measures



#### Inhalation

Move the affected person to fresh air. Keep at rest. If not breathing: artificial respiration (qualified personnel only).

#### Skin contact

Remove contaminated clothing. Rinse skin with soap and water (min. 15 minutes).

#### Eye contact

Rinse eyes with running water (min. 15 minutes). Remove contact lenses if possible. If irritation persists — consult an ophthalmologist.

#### 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 42 657 99 00 (24/7). Emergency number: 112.

#### Symptoms and effects

No specific symptoms described in the literature.

#### Notes for physician

Symptomatic treatment. No specific antidote.

**Emergency numbers: CIT Łódź: +48 42 657 99 00 (24/7) | Emergency: 112**

### 5. Firefighting measures

|                                |                                                                                |
|--------------------------------|--------------------------------------------------------------------------------|
| Suitable extinguishing media   | Adapt extinguishing media to surroundings. CO <sub>2</sub> , dry powder, foam. |
| Unsuitable extinguishing media | No specific restrictions.                                                      |
| Specific hazards               | Thermal decomposition products: CO, CO <sub>2</sub> .                          |
| Advice for firefighters        | Use self-contained breathing apparatus (SCBA). Full protective suit.           |

### 6. Accidental release measures

|                                         |                                                                                                                                      |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions                    | Use personal protective equipment (see Section 8). Avoid breathing dust/vapours.                                                     |
| Environmental precautions               | Prevent entry into sewers, groundwater and surface water.                                                                            |
| Methods for containment and cleaning up | Collect mechanically into suitable containers. Absorption: sand, vermiculite, diatomaceous earth. Do not sweep dry (dust formation). |
| 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. |
| Storage temperature | Store at room temperature (15-25°C) or as indicated on the label.                                  |
| Humidity            | Store in a dry place (<60% RH).                                                                    |
| Light               | Protect from direct sunlight.                                                                      |

## 8. Exposure controls/personal protection

### 8.1 Control parameters

|                           |                                                                                                                                                    |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>OEL — NDS (Poland)</b> | No NDS (OEL) value in the available working list — verify in the current MRPiPS regulation before use; do not assume the absence of a limit value. |
| <b>OEL (EU)</b>           | The EU OEL value has not been verified against the available dataset — check the IOELV/BOELV directives; do not assume the absence of a value.     |
| <b>DNEL</b>               | No data available.                                                                                                                                 |
| <b>PNEC</b>               | No data available.                                                                                                                                 |

### 8.2 Personal protective equipment (PPE)



## 9. Physical and chemical properties

| Property (item 9.1)             | Value                                          | Source        |
|---------------------------------|------------------------------------------------|---------------|
| <b>Physical state</b>           | Solid                                          |               |
| <b>Colour</b>                   | No data available.                             |               |
| <b>Odour</b>                    | No data available.                             |               |
| <b>pH (1% aqueous solution)</b> | No data available.                             |               |
| <b>Melting point</b>            | 197°C                                          |               |
| <b>Boiling point</b>            | No data available.                             |               |
| <b>Flash point</b>              | No data available.                             |               |
| <b>Density (20°C)</b>           | No data available.                             |               |
| <b>Vapour pressure (20°C)</b>   | No data available.                             |               |
| <b>Water solubility (20°C)</b>  | No data available.                             |               |
| <b>log Kow (XLogP3)</b>         | -0.7                                           |               |
| <b>TPSA</b>                     | 120 Å <sup>2</sup>                             | PubChem (NIH) |
| <b>HBD / HBA</b>                | No data available. / No data available.        |               |
| <b>Rotatable bonds</b>          | No data available.                             |               |
| <b>Molar mass</b>               | 272.25 g/mol                                   | PubChem (NIH) |
| <b>Molecular formula</b>        | C <sub>12</sub> H <sub>16</sub> O <sub>7</sub> | PubChem (NIH) |

## 10. Stability and reactivity

|                               |                                                       |
|-------------------------------|-------------------------------------------------------|
| <b>Reactivity</b>             | Stable under normal storage and handling conditions.  |
| <b>Chemical stability</b>     | Thermally stable under recommended conditions.        |
| <b>Hazardous reactions</b>    | No hazardous reactions known under normal conditions. |
| <b>Conditions to avoid</b>    | High temperatures, direct sunlight, moisture.         |
| <b>Incompatible materials</b> | Strong oxidizers, strong acids, strong bases.         |
| <b>Decomposition products</b> | Thermal decomposition products: CO, CO <sub>2</sub> . |

## 11. Toxicological information

|                                              |                                                                                                                                                   |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>LD50 (oral)</b>                           | No data available.                                                                                                                                |
| <b>LD50 (dermal)</b>                         | No data available.                                                                                                                                |
| <b>LC50 (inhalation)</b>                     | No data available.                                                                                                                                |
| <b>Skin irritation</b>                       | No data available.                                                                                                                                |
| <b>Eye irritation</b>                        | No data available.                                                                                                                                |
| <b>Sensitisation</b>                         | No data available.                                                                                                                                |
| <b>Mutagenicity</b>                          | No data available.                                                                                                                                |
| <b>Carcinogenicity</b>                       | No data available.                                                                                                                                |
| <b>IARC classification (carcinogenicity)</b> | No individual IARC monograph for this CAS — this is not confirmation of the absence of carcinogenicity (cf. CLP/GHS classification in section 2). |
| <b>Reproductive toxicity</b>                 | No data available.                                                                                                                                |
| <b>STOT — single exposure</b>                | No data available.                                                                                                                                |
| <b>STOT — repeated exposure</b>              | No data available.                                                                                                                                |
| <b>Aspiration hazard</b>                     | No data available.                                                                                                                                |

## 12. Ecological information

|                                        |                                             |
|----------------------------------------|---------------------------------------------|
| <b>Aquatic toxicity</b>                | No data available.                          |
| <b>Persistence / biodegradability</b>  | No data available.                          |
| <b>Bioaccumulative potential</b>       | LogP = -0.7. Low bioaccumulation potential. |
| <b>Mobility in soil</b>                | No data available.                          |
| <b>PBT/vPvB assessment</b>             | Insufficient data to assess PBT/vPvB.       |
| <b>Endocrine disrupting properties</b> | No information.                             |

## 13. Disposal considerations

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

## 14. Transport information

|                             |                                                                                 |
|-----------------------------|---------------------------------------------------------------------------------|
| <b>UN number</b>            | VERIFICATION REQUIRED — no verified UN assignment.                              |
| <b>Environmental hazard</b> | No environmental hazard indicated by GHS classification. Verification required. |
| <b>Special precautions</b>  | Verification required.                                                          |
| <b>CN/HS code</b>           | CN/HS code: verification required in the Eurostat Combined Nomenclature.        |

**Notes**

Transport classification not verified. Do not assume the absence of restrictions — check ADR/IMDG/IATA before shipping.

## 15. Regulatory information

|                          |                                                                                                                                                              |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SVHC status</b>       | SVHC status not verified against the full ECHA Candidate List (verification required) — check the ECHA Candidate List                                        |
| <b>REACH Annex XIV</b>   | Not verified against the ECHA Authorisation List — check REACH Annex XIV.                                                                                    |
| <b>REACH Annex XVII</b>  | 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. |
| <b>Verification date</b> | 2026-07-15                                                                                                                                                   |

## 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 15.07.2026 were omitted as future (not yet applicable).

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

### Abbreviations

|              |                                                                                            |
|--------------|--------------------------------------------------------------------------------------------|
| <b>ADR</b>   | European Agreement concerning the International Carriage of Dangerous Goods by Road        |
| <b>ATE</b>   | Acute Toxicity Estimate                                                                    |
| <b>CAS</b>   | Chemical Abstracts Service                                                                 |
| <b>CLP</b>   | Classification, Labelling and Packaging (Reg. (EC) 1272/2008)                              |
| <b>CMR</b>   | Carcinogenic, Mutagenic, toxic to Reproduction                                             |
| <b>DNEL</b>  | Derived No-Effect Level                                                                    |
| <b>EC</b>    | European Community number                                                                  |
| <b>EPI</b>   | Personal protective equipment                                                              |
| <b>GHS</b>   | Globally Harmonized System                                                                 |
| <b>IATA</b>  | International Air Transport Association                                                    |
| <b>IMDG</b>  | International Maritime Dangerous Goods Code                                                |
| <b>SDS</b>   | Safety Data Sheet                                                                          |
| <b>LC50</b>  | Lethal Concentration, 50%                                                                  |
| <b>LD50</b>  | Lethal Dose, 50%                                                                           |
| <b>NDS</b>   | Maximum admissible concentration (workplace, PL)                                           |
| <b>NDSch</b> | Short-term exposure limit (PL)                                                             |
| <b>OEL</b>   | Occupational Exposure Limit                                                                |
| <b>PBT</b>   | Persistent, Bioaccumulative and Toxic                                                      |
| <b>PNEC</b>  | Predicted No-Effect Concentration                                                          |
| <b>REACH</b> | Registration, Evaluation, Authorisation and Restriction of Chemicals (Reg. (EC) 1907/2006) |
| <b>STOT</b>  | Specific Target Organ Toxicity                                                             |
| <b>SVHC</b>  | Substance of Very High Concern                                                             |
| <b>TPSA</b>  | Topological Polar Surface Area                                                             |
| <b>vPvB</b>  | very Persistent and very Bioaccumulative                                                   |

### Version history

|                        |                                                                                        |
|------------------------|----------------------------------------------------------------------------------------|
| <b>v2 (15.07.2026)</b> | Prepared on the basis of the ECHA harmonised classification (Annex VI to CLP, ATP 23). |
|------------------------|----------------------------------------------------------------------------------------|

## References

- [1] EP and Council. Reg.(EC) No 1907/2006 (REACH). Art.31, Annex II. OJ EU L 396/2006.
- [2] European Commission. Reg.(EU) 2020/878 — amending Annex II REACH. OJ EU L 203/2020. From 01.01.2023.
- [3] EP and Council. Reg.(EC) 1272/2008 (CLP) + ATP 23. OJ EU L 353/2008.
- [4] United Nations. GHS Rev.9. ST/SG/AC.10/30/Rev.9. ONZ, 2021.
- [5] ISO. ISO 7010:2019 — Graphical symbols. Safety signs.
- [6] ISO. ISO 3864-1:2011 — Safety colours and safety signs.
- [7] Act of 26.06.1974 — Labour Code (Poland). Art.221-229. Journal of Laws 2023 item 1465.
- [8] MRiPS Regulation of 12.06.2018 — NDS/NDN. Journal of Laws 2024 item 1017.

## External links

NIST: <https://webbook.nist.gov/cgi/cbook.cgi?ID=497-76-7>

ChEMBL: [https://www.ebi.ac.uk/chembl/compound\\_report\\_card/ChEMBL232202](https://www.ebi.ac.uk/chembl/compound_report_card/ChEMBL232202)

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**Generator:** Document prepared automatically on the basis of the ECHA harmonised classification (Annex VI to CLP, ATP 23) and public physico-chemical databases.

**Author:** [www.MolGod.org](http://www.MolGod.org) — automated safety data sheet (SDS) platform.

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