

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 1,2 Propanediol > 99 % for synthesis

Revision date: 23.02.2023

Product code: 16968

Page 1 of 9

#### SECTION 1: Identification of the substance/mixture and of the company/undertaking

##### 1.1. Product identifier

1,2 Propanediol > 99 % for synthesis

REACH Registration Number: 01-2119456809-23-XXXX

CAS No: 57-55-6

EC No: 200-338-0

##### 1.2. Relevant identified uses of the substance or mixture and uses advised against

###### **Use of the substance/mixture**

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

###### **Uses advised against**

Do not use for private purposes (household).

##### 1.3. Details of the supplier of the safety data sheet

Company name: AnalytiChem GmbH

Street: Stempelstraße 6

Place: D-47167 Duisburg

Telephone: 0203/5194-0

Telefax: 0203/5194-290

e-mail: info@analytichem.de

Contact person: Abteilung Produktsicherheit

Telephone: 0203/5194-107/117

e-mail: produktsicherheit@analytichem.de

Internet: www.analytichem.de

Responsible Department: Abteilung Produktsicherheit

##### 1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

##### **Further Information**

A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### **Regulation (EC) No 1272/2008**

This substance is not classified as hazardous in accordance with Regulation (EC) No 1272/2008.

##### 2.2. Label elements

##### 2.3. Other hazards

No data available

#### SECTION 3: Composition/information on ingredients

##### 3.1. Substances

Sum formula: C3H8O2

Molecular weight: 76,09 g/mol

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**1,2 Propanediol > 99 % for synthesis**

Revision date: 23.02.2023

Product code: 16968

Page 2 of 9

**Hazardous components**

| CAS No  | Chemical name                                 |          |                       | Quantity |
|---------|---|----------|-----------------------|----------|
|         | EC No   | Index No | REACH No              |          |
|         | Classification (Regulation (EC) No 1272/2008) |          |                       |          |
| 57-55-6 | propane-1,2-diol                              |          |                       | 100 %    |
|         | 200-338-0                                     |          | 01-2119456809-23-XXXX |          |

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

| CAS No  | EC No   | Chemical name    | Quantity |
|---------|---|------------------|----------|
|         | Specific Conc. Limits, M-factors and ATE              |                  |          |
| 57-55-6 | 200-338-0   | propane-1,2-diol | 100 %    |
|         | dermal: LD50 = > 2000 mg/kg; oral: LD50 = 22000 mg/kg |                  |          |

**Further Information**

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**General information**

No data available

**After inhalation**

Provide fresh air.

**After contact with skin**

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

**After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water.

Remove contact lenses, if present and easy to do. Continue rinsing.

**After ingestion**

Rinse mouth immediately and drink plenty of water.

Call a doctor if you feel unwell.

**4.2. Most important symptoms and effects, both acute and delayed**

No data available

**4.3. Indication of any immediate medical attention and special treatment needed**

No data available

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

**Suitable extinguishing media**

Foam

Carbon dioxide (CO<sub>2</sub>)

Extinguishing powder

Water

**Unsuitable extinguishing media**

no restriction

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 1,2 Propanediol > 99 % for synthesis

Revision date: 23.02.2023

Product code: 16968

Page 3 of 9

#### **5.2. Special hazards arising from the substance or mixture**

Combustible liquids  
Hazardous combustion products  
In case of fire may be liberated:  
Carbon dioxide (CO<sub>2</sub>) Carbon monoxide  
In case of warming:  
Vapours are heavier than air, spread along floors and form explosive mixtures with air.

#### **5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

#### **Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.  
Use water spray jet to protect personnel and to cool endangered containers.

### **SECTION 6: Accidental release measures**

#### **6.1. Personal precautions, protective equipment and emergency procedures**

##### **For non-emergency personnel**

Provide adequate ventilation.  
Use personal protection equipment.  
Avoid contact with skin, eyes and clothes.  
Remove persons to safety.  
Emergency procedures  
Do not breathe dust/fume/gas/mist/vapours/spray.

##### **For emergency responders**

Precautionary statements For emergency responders : Personal protection equipment: see section 8

#### **6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

#### **6.3. Methods and material for containment and cleaning up**

##### **For containment**

Cover drains.  
Prevent spread over a wide area (e.g. by containment or oil barriers).  
Collect in closed and suitable containers for disposal.  
Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

##### **For cleaning up**

Clean contaminated articles and floor according to the environmental legislation.

##### **Other information**

Provide adequate ventilation.  
Do not breathe dust/fume/gas/mist/vapours/spray.  
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

#### **6.4. Reference to other sections**

Safe handling: see section 7  
Personal protection equipment: see section 8  
Disposal: see section 13

### **SECTION 7: Handling and storage**

#### **7.1. Precautions for safe handling**

##### **Advice on safe handling**

Do not breathe vapour/aerosol.  
Avoid contact with skin, eyes and clothes.

##### **Advice on protection against fire and explosion**

In case of warming:

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 1,2 Propanediol > 99 % for synthesis

Revision date: 23.02.2023

Product code: 16968

Page 4 of 9

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

#### Further information on handling

Take off immediately all contaminated clothing and wash it before reuse.

Draw up and observe skin protection programme.

Wash hands and face before breaks and after work and take a shower if necessary.

#### 7.2. Conditions for safe storage, including any incompatibilities

##### Requirements for storage rooms and vessels

Keep container tightly closed.

##### Hints on joint storage

No data available

##### Further information on storage conditions

Keep cool. Protect from sunlight.

storage temperature: +5°C - +30°C

#### 7.3. Specific end use(s)

Laboratory chemicals

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

| CAS No  | Substance                      | ppm | mg/m <sup>3</sup> | fib/cm <sup>3</sup> | Category  | Origin |
|---------|--------------------------------|-----|-------------------|---------------------|-----------|--------|
| 57-55-6 | Propane-1,2-diol, particulates | -   | 10                |                     | TWA (8 h) |        |

#### DNEL/DMEL values

| CAS No  | Substance                | Exposure route | Effect   | Value                 |
|---------|--------------------------|----------------|----------|-----------------------|
| 57-55-6 | propane-1,2-diol         |                |          |                       |
|         | Worker DNEL, long-term   | inhalation     | systemic | 168 mg/m <sup>3</sup> |
|         | Worker DNEL, long-term   | inhalation     | local    | 10 mg/m <sup>3</sup>  |
|         | Consumer DNEL, long-term | inhalation     | systemic | 50 mg/m <sup>3</sup>  |
|         | Consumer DNEL, long-term | inhalation     | local    | 10 mg/m <sup>3</sup>  |

#### PNEC values

| CAS No  | Substance  | Value      |
|---------|--|------------|
| 57-55-6 | propane-1,2-diol                                 |            |
|         | Freshwater                                       | 260 mg/l   |
|         | Freshwater (intermittent releases)               | 183 mg/l   |
|         | Marine water                                     | 26 mg/l    |
|         | Freshwater sediment                              | 572 mg/kg  |
|         | Marine sediment                                  | 57,2 mg/kg |
|         | Micro-organisms in sewage treatment plants (STP) | 20000 mg/l |
|         | Soil   | 50 mg/kg   |

### 8.2. Exposure controls

#### Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**1,2 Propanediol > 99 % for synthesis**

Revision date: 23.02.2023

Product code: 16968

Page 5 of 9

equipment.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

goggles

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: [vertrieb@kcl.de](mailto:vertrieb@kcl.de) With specification (test according to EN374):

By long-term hand contact

Trade name/designation: KCL 741 Dermatril® L  
Recommended material: NBR (Nitrile rubber) 0,11 mm  
Wearing time with permanent contact: > 480 min

By short-term hand contact

Trade name/designation: KCL 741 Dermatril® L  
Recommended material: NBR (Nitrile rubber) 0,11 mm  
Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

**Skin protection**

Take off immediately all contaminated clothing and wash it before reuse.

**Respiratory protection**

Respiratory protection necessary at: aerosol or mist formation  
Filtering device with filter or ventilator filtering device of type: A-(P2)

**Environmental exposure controls**

Do not allow to enter into surface water or drains.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

|   |                   |
|---|-------------------|
| Physical state:   | Liquid            |
| Colour:   | colourless        |
| Odour:  | characteristic    |
| Melting point/freezing point:                             | -59 °C            |
| Boiling point or initial boiling point and boiling range: | 184 °C            |
| Flammability:   | No data available |
| Lower explosion limits:                                   | 2,4 vol. %        |
| Upper explosion limits:                                   | 17,4 vol. %       |
| Flash point:  | 104 °C            |
| Auto-ignition temperature:                                | 371 °C            |
| Decomposition temperature:                                | No data available |

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 1,2 Propanediol > 99 % for synthesis

Revision date: 23.02.2023

Product code: 16968

Page 6 of 9

|  |                        |
|--|------------------------|
| pH-Value (at 20 °C):                   | 6-8 (100 g/l)          |
| Viscosity / kinematic:                 | No data available      |
| Water solubility:                      | very soluble           |
| Solubility in other solvents           |                        |
| No data available                      |                        |
| Partition coefficient n-octanol/water: | log Pow: 0,085         |
| Vapour pressure:                       | 0,11 hPa               |
| (at 20 °C)                             |                        |
| Vapour pressure:                       | No data available      |
| Density (at 20 °C):                    | 1,04 g/cm <sup>3</sup> |
| Bulk density:                          | No data available      |
| Relative vapour density:               | No data available      |

#### 9.2. Other information

##### Information with regard to physical hazard classes

###### Explosive properties

In case of warming:

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Sustaining combustion:

Sustaining combustion

Self-ignition temperature

Solid:

No data available

Gas:

No data available

Oxidizing properties

No data available

##### Other safety characteristics

Evaporation rate:

No data available

Solvent separation test:

No data available

Solvent content:

No data available

Solid content:

No data available

Sublimation point:

No data available

Softening point:

No data available

Pour point:

No data available

Viscosity / dynamic:

45 mPa·s

    (at 20 °C)

Flow time:

No data available

##### Further Information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

In case of warming:

Vapours may form explosive mixtures with air.

### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

### 10.3. Possibility of hazardous reactions

Oxidising agent

### 10.4. Conditions to avoid

Heat

### 10.5. Incompatible materials

Plastic articles

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**1,2 Propanediol > 99 % for synthesis**

Revision date: 23.02.2023

Product code: 16968

Page 7 of 9

**10.6. Hazardous decomposition products**

SECTION 5: Firefighting measures

**Further information**

No data available

**SECTION 11: Toxicological information**

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

**Toxicokinetics, metabolism and distribution**

No data available

**Acute toxicity**

Based on available data, the classification criteria are not met.

| CAS No  | Chemical name    |                         |         |   |   |
|---------|------------------|-------------------------|---------|---|---|
|         | Exposure route   | Dose                    | Species | Source                                    | Method                                      |
| 57-55-6 | propane-1,2-diol |                         |         |   |   |
|         | oral             | LD50<br>mg/kg<br>22000  | Rat     | J. Ind. Hyg. Tox., 21,<br>173-201. (1939) | Groups of 9 or 10 rats<br>were administered |
|         | dermal           | LD50<br>mg/kg<br>> 2000 | Rabbit  | Study report (1982)                       | The test substance<br>was administered at d |

**Irritation and corrosivity**

Based on available data, the classification criteria are not met.  
slightly irritant but not relevant for classification.

**Sensitising effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects for reproduction**

Based on available data, the classification criteria are not met.

**STOT-single exposure**

Based on available data, the classification criteria are not met.  
Liver and kidney damage

**STOT-repeated exposure**

Based on available data, the classification criteria are not met.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**Specific effects in experiment on an animal**

No data available

**Additional information on tests**

No data available

**Practical experience**

No data available

**11.2. Information on other hazards**

**Other information**

No data available

**Further information**

No data available

**SECTION 12: Ecological information**

**12.1. Toxicity**

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**1,2 Propanediol > 99 % for synthesis**

Revision date: 23.02.2023

Product code: 16968

Page 8 of 9

| CAS No  | Chemical name            |              |           |         |                     |  |
|---------|--------------------------|--------------|-----------|---------|---------------------|--|
|         | Aquatic toxicity         | Dose         | [h]   [d] | Species | Source              | Method   |
| 57-55-6 | propane-1,2-diol         |              |           |         |                     |  |
|         | Acute fish toxicity      | LC50<br>mg/l | 40613     | 96 h    | Oncorhynchus mykiss | Study report (1995)<br>other: Environment Canada |
|         | Acute crustacea toxicity | EC50<br>mg/l | 18340     | 48 h    | Ceriodaphnia dubia  | Publication (1995)<br>other: EPA 600/4-90/0-27   |
|         | Crustacea toxicity       | NOEC<br>mg/l | 13020     | 7 d     | Ceriodaphnia sp.    | Publication (1995)<br>other: EPA 600/4-89/001    |

**12.2. Persistence and degradability**

86 %; 20 d  
OECD 301D  
Readily biodegradable (according to OECD criteria).

**12.3. Bioaccumulative potential**

No indication of bioaccumulation potential.

**Partition coefficient n-octanol/water**

| CAS No  | Chemical name    | Log Pow |
|---------|------------------|---------|
| 57-55-6 | propane-1,2-diol | 0,085   |

**BCF**

| CAS No  | Chemical name    | BCF  | Species        | Source               |
|---------|------------------|------|----------------|----------------------|
| 57-55-6 | propane-1,2-diol | 0,09 | not applicable | Review article or ha |

**12.4. Mobility in soil**

No data available

**12.5. Results of PBT and vPvB assessment**

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.  
This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

**12.6. Endocrine disrupting properties**

This substance does not have endocrine disrupting properties with respect to non-target organisms.

**12.7. Other adverse effects**

Do not allow to enter into surface water or drains.

**Further information**

Avoid release to the environment.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.  
Do not empty into drains.

**Contaminated packaging**

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

**SECTION 14: Transport information**

**Land transport (ADR/RID)**

**14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.



## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 1,2 Propanediol > 99 % for synthesis

Revision date: 23.02.2023

Product code: 16968

Page 9 of 9

**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.

**14.4. Packing group:** No dangerous good in sense of this transport regulation.

#### Inland waterways transport (ADN)

**14.1. UN number or ID number:** No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.

**14.4. Packing group:** No dangerous good in sense of this transport regulation.

#### Marine transport (IMDG)

**14.1. UN number or ID number:** No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.

**14.4. Packing group:** No dangerous good in sense of this transport regulation.

#### Air transport (ICAO-TI/IATA-DGR)

**14.1. UN number or ID number:** No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.

**14.4. Packing group:** No dangerous good in sense of this transport regulation.

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

#### 14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

#### 14.7. Maritime transport in bulk according to IMO instruments

No dangerous good in sense of this transport regulation.

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU regulatory information

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

#### National regulatory information

Water hazard class (D): 1 - slightly hazardous to water

## SECTION 16: Other information

### Changes

This data sheet contains changes from the previous version in section(s): 1.

### Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.