

Propylene glycol

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Date of issue: 19/07/2012 Revision date: 22/03/2017

258997

Version: 2.0

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

1.1. Product identifier

Product form : Substance
Substance name : Propylene glycol
IUPAC name : (RS)-propane-1,2-diol
EC-No. : 200-338-0
CAS-No. : 57-55-6
Product code : 258997
Formula : C₃H₈O₂
Product group : Raw material

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

1.2.1. Relevant identified uses

Main use category : Pharmaceutical
Function or use category : Raw material

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

Duchefa Farma BV
A. Hofmanweg 71
2031BH Haarlem - The Netherlands
T +31(0)23-5319093
farma@duchefa.nl - www.duchefa-farma.com

1.4. Emergency telephone number

Emergency number : Supplier contact information:
+31(0)23-5319093 (M-F 09:00-17:00)
+31(0)6-30109355 (outside office hours)

| Country | Organisation/Company | Address | Emergency number | Comment |
|----------------|--|---------------------------------|------------------|---------|
| United Kingdom | Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Centre Hospitalier Universitaire de Constantine | Avonley Road SE14 5ER London | 0870 243 2241 | |

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

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2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|------------------|---|-----|---|
| Propylene glycol | (CAS-No.) 57-55-6 (EC-No.) 200-338-0 | 100 | Not classified |

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|---------------------------------------|--|
| First-aid measures after inhalation | : Assure fresh air breathing. Get medical advice and attention if you feel unwell. |
| First-aid measures after skin contact | : Wash skin with mild soap and water. Seek medical attention if ill effect or irritation develops. |
| First-aid measures after eye contact | : Rinse immediately with plenty of water. If eye irritation persists, take medical advice. |
| First-aid measures after ingestion | : Rinse mouth. If you feel unwell, seek medical advice. |

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

| | |
|------------------|---|
| Symptoms/effects | : May cause irritation to the respiratory tract and to other mucous membranes. May cause eye, skin and respiratory system irritation. Headache. Nausea. Vomiting. Diarrhea. This material or its emissions may induce blood disorders and/or aggravate pre-existing blood disorders. Damage to kidneys and liver. |
|------------------|---|

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

No additional information available

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

| | |
|------------------------------|---|
| Suitable extinguishing media | : All extinguishing agents can be used. |
|------------------------------|---|

5.2. Special hazards arising from the substance or mixture

- Fire hazard : On exposure to high temperature, may decompose, releasing toxic gases. Carbon dioxide. Carbon monoxide.
- Explosion hazard : Product is not explosive.

5.3. Advice for firefighters

- Precautionary measures fire : Exercise caution when fighting any chemical fire.
- Firefighting instructions : Prevent fire fighting water from entering the environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Ensure adequate air ventilation. Avoid raising dust.

6.1.2. For emergency responders

- Protective equipment : Wear proper protective equipment. Wear respiratory protection.

6.2. Environmental precautions

- Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Take up liquid spill into inert absorbent material. To clean the floor or objects contaminated by this product, use : Water.

6.4. Reference to other sections

- No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in dry, well-ventilated area. Keep container tightly closed. Protect from moisture.

7.3. Specific end use(s)

- Pharmaceutical industry.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Propylene glycol (57-55-6) | | |
|----------------------------|---------------------------------|-----------------------|
| EU | IOELV STEL (mg/m ³) | 474 mg/m ³ |

8.2. Exposure controls

Hand protection:

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| Type | Material | Permeation | Thickness (mm) | Standard |
|--------|----------------------|-------------------|----------------|----------|
| Gloves | Nitrile rubber (NBR) | 6 (> 480 minutes) | 0,11 | EN 374 |

Eye protection:

Safety glasses (to European standard EN 166 or equivalent)

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

None necessary

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|----------------------------------|
| Physical state | : Liquid |
| Appearance | : Viscous. Oil. |
| Molecular mass | : 76.1 g/mol |
| Colour | : Colourless. |
| Odour | : weak. |
| Odour threshold | : No data available |
| pH | : No data available |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point | : -68 - -54 °C |
| Freezing point | : No data available |
| Boiling point | : 185 - 190 °C |
| Flash point | : 99 - 103 °C cc |
| Auto-ignition temperature | : > 370 °C |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : No data available |
| Vapour pressure | : 0.1 - 0.19 hPa |
| Relative vapour density at 20 °C | : No data available |
| Relative density | : No data available |
| Density | : 1.035 - 1.04 g/cm ³ |
| Solubility | : Soluble in water. |
| Log Pow | : -0.92 |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : 55 - 60.5 mPa.s |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Explosive limits | : 2.6 - 12.5 vol % |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity**10.1. Reactivity**

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal conditions.

10.4. Conditions to avoid

heat. High temperature. Moisture.

10.5. Incompatible materials

Strong oxidizers. Strong acids.

10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide.

SECTION 11: Toxicological information**11.1. Information on toxicological effects**

Acute toxicity : Not classified

| Propylene glycol (57-55-6) | |
|----------------------------|-------------|
| LD50 oral rat | 20000 mg/kg |
| LD50 dermal rabbit | 20800 mg/kg |

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

SECTION 12: Ecological information**12.1. Toxicity**

| Propylene glycol (57-55-6) | |
|----------------------------|--------------------------------------|
| LC50 fish 1 | > 100 mg/l 96 h, Oncorhynchus mykiss |
| EC50 Daphnia 1 | > 100 mg/l 48 h |
| ErC50 (algae) | > 100 mg/l 72 h |

12.2. Persistence and degradability

| Propylene glycol (57-55-6) | |
|---------------------------------|------------------------------------|
| Biochemical oxygen demand (BOD) | 860 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 1585 g O ₂ /g substance |

12.3. Bioaccumulative potential

| Propylene glycol (57-55-6) | |
|----------------------------|-------|
| Log Pow | -0.92 |
| Bioaccumulative potential | None. |

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Waste treatment methods : Avoid release to the environment.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

| ADR | IATA |
|---|------------------------------------|
| 14.1. UN number | |
| Not applicable | Not applicable |
| 14.2. UN proper shipping name | |
| Not applicable | Not applicable |
| 14.3. Transport hazard class(es) | |
| Not applicable | Not applicable |
| Not applicable | Not applicable |
| 14.4. Packing group | |
| Not applicable | Not applicable |
| 14.5. Environmental hazards | |
| Dangerous for the environment : No | Dangerous for the environment : No |
| No supplementary information available | |

14.6. Special precautions for user**- Overland transport**

No data available

- Air transport

No data available

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****15.1.1. EU-Regulations**

No REACH Annex XVII restrictions

Propylene glycol is not on the REACH Candidate List

Propylene glycol is not on the REACH Annex XIV List

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

| | | | |
|-----|---------------------|----------|--|
| 1.4 | Emergency telephone | Modified | Added additional information |
| 8.2 | Hand protection | Modified | Specified material, thickness, et cetera of gloves |

Abbreviations and acronyms:

| | |
|-------|---|
| SDS | Safety Data Sheet |
| RID | Regulations concerning the International Carriage of Dangerous Goods by Rail |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 |
| IMDG | International Maritime Dangerous Goods |
| IATA | International Air Transport Association |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| ADN | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
| CLP | Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008 |

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

SDS EU (REACH Annex II) Version 2017

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product