

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Reference number: P0805

Issue date: 20/12/2023 Revision date: 19/12/2023 Supersedes version of: 03/10/2017 Version: 3.0

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

1.1. Product identifier

| | |
|---------------|--|
| Product form | : Substance (UVCB) |
| Trade name | : Polyethylene glycol 6000 |
| EC-No. | : 500-038-2 |
| CAS-No. | : 25322-68-3 |
| Product code | : P0805 |
| Formula | : (C ₂ H ₄ O) · n.H ₂ O |
| Synonyms | : PEG 6000 / Macrogol 6000 |
| 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 | : Professional use |
| Industrial/Professional use spec | : For professional use only. Duchefa Biochemie B.V. products are intended only for "in vitro laboratory" research purposes. |

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Distributor

Duchefa Biochemie B.V.
A. Hofmanweg 71
2031 BH Haarlem
The Netherlands
T +31(0)23-5319093 - F +31(0)23-5318027
info@duchefa.nl

1.4. Emergency telephone number

| | |
|------------------|--|
| Emergency number | : Supplier contact information: +31(0)23-5319093 (M-F 09:00-17:00) +31(0)6-30008100 (outside office hours) |
|------------------|--|

| Country | Organisation/Company | Address | Emergency number | Comment |
|---------|---|---|------------------|---|
| | World Health Organization world directory of poison centres | http://apps.who.int/poisoncentres/ | | Consult website for a local poison centre |

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

2.2. Label elements

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

No labelling applicable

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Comments : Average molecular mass: 5600-6600 g/mol
Substance type : UVCB

| Name | Product identifier | % |
|--------------------------|--|------|
| Polyethylene glycol 6000 | CAS-No.: 25322-68-3 EC-No.: 500-038-2 | ≥ 99 |

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Allow affected person to breathe fresh air. If you feel unwell, seek medical advice.
First-aid measures after skin contact : Wash skin with mild soap and water.
First-aid measures after eye contact : Rinse immediately with plenty of water.
First-aid measures after ingestion : Give water to drink. Seek medical attention if ill effect develops.

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

No additional information available

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry chemical powder. Carbon dioxide (CO₂). Water spray. Alcohol resistant foam.
Unsuitable extinguishing media : Strong water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : When heated to decomposition, emits toxic fumes: - CO_x.

5.3. Advice for firefighters

Firefighting instructions : Avoid (reject) fire-fighting water to enter 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

General measures : Wear suitable protective clothing.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Dilute residue with water. Dispose in a safe manner in accordance with local/national regulations. Dike for recovery or absorb with appropriate material.

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 : Do not eat, drink or smoke when using this product. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ensure good ventilation of the work station.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in dry, well-ventilated area. Store at room temperature. Light and moisture sensitive.
 Incompatible products : Oxidizing agent.
 Incompatible materials : Heat sources. Sources of ignition.

7.3. Specific end use(s)

For professional use only. Duchefa Biochemie B.V. products are intended only for "in vitro laboratory" research purposes.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

| Polyethylene glycol 6000 (25322-68-3) | |
|--|--|
| Germany - Occupational Exposure Limits (TRGS 900) | |
| Local name | Polyethylenglykol (PEG 200-600) |
| AGW (OEL TWA) [1] | 1000 mg/m ³ |
| Peak exposure limitation factor | 2(II) |
| Remark | DFG - Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG (MAK-Kommission); Y - Ein Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes (BGW) nicht befürchtet zu werden |
| Regulatory reference | TRGS900 |
| Slovakia - Occupational Exposure Limits | |
| Local name | Polyetylén glykol |
| NPHV (OEL TWA) [1] | 1000 mg/m ³ |
| Regulatory reference | Nariadenie vlády č. 355/2006 Z. z. (236/2020 Z. z.) |

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

| Switzerland - Occupational Exposure Limits | |
|--|--|
| Local name | Polyéthylèneglycols (PEG) / Polyethylenglykole (PEG) [Polyethylenoxid] |
| MAK (OEL TWA) [1] | 500 mg/m ³ |
| Critical toxicity | MCorp / KG |
| Notation | SS _c / SS _c |
| Regulatory reference | www.suva.ch, 01.01.2023 |

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

| Polyethylene glycol 6000 (25322-68-3) | |
|--|--------------------------|
| DNEL/DMEL (Workers) | |
| Long-term - systemic effects, dermal | 112 mg/kg bodyweight/day |
| Long-term - systemic effects, inhalation | 40,2 mg/m ³ |
| DNEL/DMEL (General population) | |
| Long-term - systemic effects, oral | 40 mg/kg bodyweight/day |
| Long-term - systemic effects, inhalation | 7,14 mg/m ³ |
| Long-term - systemic effects, dermal | 40 mg/kg bodyweight/day |
| PNEC (Water) | |
| PNEC aqua (freshwater) | 0,273 g/l |
| PNEC aqua (marine water) | 27,3 mg/l |
| PNEC aqua (intermittent, freshwater) | 1 mg/l |
| PNEC aqua (intermittent, marine water) | 0,1 mg/l |
| PNEC (Sediment) | |
| PNEC sediment (freshwater) | 1030 mg/kg dwt |
| PNEC sediment (marine water) | 103 mg/kg dwt |
| PNEC (Soil) | |
| PNEC soil | 46,4 mg/kg dwt |

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No additional information available

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

| Eye protection | | | |
|----------------|----------------------|-----------------|----------|
| Type | Field of application | Characteristics | Standard |
| Safety glasses | Droplet | | EN 166 |

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

8.2.2.2. Skin protection

Skin and body protection:

In case of possible repeated skin contact wear protective clothing

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

8.2.2.3. Respiratory protection

| Respiratory protection | | | |
|------------------------|-------------|-----------|----------|
| Device | Filter type | Condition | Standard |
| Dust mask | Type P1 | | EN 143 |

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---|
| Physical state | : Solid |
| Colour | : White. |
| Appearance | : Crystals. Flakes. |
| Odour | : Characteristic. |
| Odour threshold | : Not available |
| Melting point | : $\geq 55 - \leq 60$ °C |
| Freezing point | : Not available |
| Boiling point | : 205,7 °C Atm. press.: 977,6 hPa Decomposition: 'no' |
| Flammability | : Not available |
| Explosive limits | : Not applicable |
| Lower explosion limit | : Not applicable |
| Upper explosion limit | : Not applicable |
| Flash point | : 270 °C (Open cup) |
| Auto-ignition temperature | : > 320 (DIN 51794) |
| Decomposition temperature | : Not available |
| pH | : 5 – 7 (100 g/l) |
| pH solution | : Not available |
| Viscosity, kinematic | : 200 – 250 mm ² /s (20 °C; DIN 51562) |
| Viscosity, dynamic | : 220 – 275 mPa·s (20 °C; DIN 53019) |
| Solubility | : Miscible with water. Water: 500 g/l |
| Partition coefficient n-octanol/water (Log Kow) | : Not available |
| Partition coefficient n-octanol/water (Log Pow) | : < -1 |
| Vapour pressure | : 0,01 mbar (20 °C) |
| Vapour pressure at 50°C | : Not available |
| Density | : 1200 kg/m ³ |
| Relative density | : Not available |
| Relative vapour density at 20°C | : Not applicable |
| Particle size | : Not available |

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

Bulk density : 400 – 500 kg/m³

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Open flame. - Heat.

10.5. Incompatible materials

Alkali. Oxidizing agents and acids.

10.6. Hazardous decomposition products

When heated to decomposition, emits dangerous fumes. - COx.

SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

| Polyethylene glycol 6000 (25322-68-3) | |
|---------------------------------------|--|
| LD50 oral rat | > 15000 mg/kg |
| LD50 dermal rat | > 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity) |

Skin corrosion/irritation : Not classified
pH: 5 – 7 (100 g/l)

Serious eye damage/irritation : Not classified
pH: 5 – 7 (100 g/l)

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

| Polyethylene glycol 6000 (25322-68-3) | |
|---------------------------------------|--|
| NOAEL (animal/female, F0/P) | 1690 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: other: |

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

| Polyethylene glycol 6000 (25322-68-3) | |
|---------------------------------------|---|
| LOAEL (oral, rat, 90 days) | 16000 mg/kg bodyweight Animal: rat, Guideline: other: |

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

| Polyethylene glycol 6000 (25322-68-3) | |
|--|--|
| NOAEL (oral, rat, 90 days) | 8000 mg/kg bodyweight Animal: rat, Guideline: other: |
| NOAEC (inhalation, rat, dust/mist/fume, 90 days) | 1 mg/l air Animal: rat, Guideline: other: |

Aspiration hazard : Not classified

| Polyethylene glycol 6000 (25322-68-3) | |
|---------------------------------------|---|
| Viscosity, kinematic | 200 – 250 mm ² /s (20 °C; DIN 51562) |

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : The substance/mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

11.2.2. Other information

Other information : See actual entry in RTECS for complete information: TQ4100000

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

| Polyethylene glycol 6000 (25322-68-3) | |
|---------------------------------------|--|
| LC50 - Fish [1] | > 1000 mg/l |
| EC50 - Crustacea [1] | > 100 mg/l Test organisms (species): Daphnia magna |
| EC50 96h - Algae [1] | > 100 mg/l Test organisms (species): other: |
| NOEC (chronic) | 17475,27 mg/l Test organisms (species): Daphnia magna Duration: '21 d' |
| NOEC chronic fish | 13671,59 mg/l Test organisms (species): other: Duration: '28 d' |

12.2. Persistence and degradability

| Polyethylene glycol 6000 (25322-68-3) | |
|---------------------------------------|--------------------------|
| Persistence and degradability | Minimally biodegradable. |
| Biodegradation | < 20 % |

12.3. Bioaccumulative potential

| Polyethylene glycol 6000 (25322-68-3) | |
|---|------|
| Partition coefficient n-octanol/water (Log Pow) | < -1 |

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : The substance/mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %.

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose in a safe manner in accordance with local/national regulations. Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

| ADR | IMDG | IATA |
|---|----------------|----------------|
| 14.1. UN number or ID number | | |
| Not applicable | Not applicable | Not applicable |
| 14.2. UN proper shipping name | | |
| Not applicable | Not applicable | Not applicable |
| 14.3. Transport hazard class(es) | | |
| Not applicable | Not applicable | Not applicable |
| 14.4. Packing group | | |
| Not applicable | Not applicable | Not applicable |
| 14.5. Environmental hazards | | |
| Not applicable | Not applicable | Not applicable |
| No supplementary information available | | |

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Not listed on REACH Annex XVII

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

Ensure all national/local regulations are observed.

Germany

Water hazard class (WGK) : WGK 1, Slightly hazardous to water (Classification according to VwVwS, Annex 1 or 2; ID No. 279).

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

SZW-lijst van reprotoxische stoffen – Borstvoeding : The substance is not listed

SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : The substance is not listed

SZW-lijst van reprotoxische stoffen – Ontwikkeling : The substance is not listed

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

| Indication of changes | | | |
|-----------------------|---------------|----------|----------|
| Section | Changed item | Change | Comments |
| | Revision date | Modified | |
| | Supersedes | Modified | |

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

| Indication of changes | | | |
|-----------------------|--|----------|----------|
| Section | Changed item | Change | Comments |
| | Regulatory framework | Added | |
| | Adverse health effects caused by endocrine disrupting properties | Added | |
| | Substance type | Added | |
| | NOAEL (animal/female, F0/P) | Added | |
| | Comments (on top of composition) | Modified | |
| 1.1 | Product group | Added | |
| 1.1 | Formula | Modified | |
| 3 | Composition/information on ingredients | Modified | |
| 4.1 | First-aid measures after skin contact | Modified | |
| 4.1 | First-aid measures after inhalation | Modified | |
| 5.1 | Unsuitable extinguishing media | Added | |
| 5.3 | Protection during firefighting | Modified | |
| 6.1 | Emergency procedures | Added | |
| 6.2 | Environmental precautions | Modified | |
| 7.1 | Precautions for safe handling | Added | |
| 7.2 | Incompatible products | Added | |
| 7.2 | Incompatible materials | Added | |
| 8 | Regulatory reference | Added | |
| 8 | Regulatory reference | Added | |
| 8.1 | Critical toxicity | Added | |
| 8.1 | Notation | Added | |
| 8.1 | MAK (OEL TWA) [1] | Added | |
| 8.1 | Local name | Added | |
| 8.1 | NPHV (OEL TWA) [1] | Added | |
| 8.1 | Local name | Added | |
| 8.1 | Regulatory reference | Added | |
| 8.1 | Remark | Added | |
| 8.1 | Peak exposure limitation factor | Added | |
| 8.1 | Local name | Added | |
| 8.1 | PNEC soil | Added | |
| 8.1 | PNEC sediment (marine water) | Added | |
| 8.1 | PNEC sediment (freshwater) | Added | |
| 8.1 | PNEC aqua (marine water) | Added | |
| 8.1 | PNEC aqua (intermittent, marine water) | Added | |
| 8.1 | PNEC aqua (intermittent, freshwater) | Added | |
| 8.1 | PNEC aqua (freshwater) | Added | |

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

| Indication of changes | | | |
|-----------------------|--|----------|----------|
| Section | Changed item | Change | Comments |
| 8.1 | Long-term - systemic effects,oral | Added | |
| 8.1 | Long-term - systemic effects, inhalation | Added | |
| 8.1 | Long-term - systemic effects, inhalation | Added | |
| 8.1 | Long-term - systemic effects, dermal | Added | |
| 8.1 | Long-term - systemic effects, dermal | Added | |
| 8.2 | Environmental exposure controls | Added | |
| 8.2 | Skin and body protection | Added | |
| 9.1 | Boiling point | Added | |
| 9.1 | Physical state | Modified | |
| 9.1 | Melting point | Modified | |
| 11.1 | NOAEL (oral, rat, 90 days) | Added | |
| 11.1 | NOAEC (inhalation, rat, dust/mist/fume, 90 days) | Added | |
| 11.1 | LOAEL (oral, rat, 90 days) | Added | |
| 11.1 | LD50 dermal rat | Added | |
| 12.1 | NOEC chronic fish | Added | |
| 12.1 | NOEC (chronic) | Added | |
| 12.1 | EC50 96h algae (1) | Added | |
| 12.1 | EC50 - Crustacea [1] | Added | |
| 12.6 | Adverse effects on the environment caused by endocrine disrupting properties | Added | |

| Abbreviations and acronyms: | |
|-----------------------------|---|
| ATE | Acute Toxicity Estimate |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| BCF | Bioconcentration factor |
| CLP | Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008 |
| DPD | Dangerous Preparations Directive 1999/45/EC |
| DSD | Dangerous Substances Directive 67/548/EEC |
| IATA | International Air Transport Association |
| IMDG | International Maritime Dangerous Goods |
| LC50 | Median lethal concentration |
| LD50 | Median lethal dose |
| LOAEL | Lowest Observed Adverse Effect Level |
| NOAEC | No-Observed Adverse Effect Concentration |
| PBT | Persistent Bioaccumulative Toxic |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 |

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Abbreviations and acronyms:

| | |
|-----|-------------------|
| SDS | Safety Data Sheet |
|-----|-------------------|

Data sources

: Supplier. 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.

Safety Data Sheet (SDS), EU Duchefa 2023

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.