

## PEG400

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

## 1.1. Product identifier

**Product name** : PEG400  
**Synonyms** : INEOX PEG400; PEG400PH; PEG400ST; PEG400XLA; polyethylene glycol 400; polyethylene glycols  
**Registration number REACH** : Not applicable  
Exempted from registration under REACH (Regulation (EC) No 1907/2006, article 2 (9), polymers)  
**Product type REACH** : Polymer  
**CAS number** : 25322-68-3  
**Molecular mass** : 400.00 g/mol  
**Formula** :  $H(C_2H_4O)_nHO$

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

## 1.2.1 Relevant identified uses

Solvent  
Chemical intermediate

## 1.2.2 Uses advised against

No uses advised against known

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

Supplier of the safety data sheet

INEOS N.V.  
Haven 1053 - Nieuwe Weg 1  
B-2070 Zwijndrecht  
☎ +32 3 250 91 11  
✉ +32 3 252 84 33  
reach.oxide.be@ineos.com

Manufacturer of the product

INEOS N.V.  
Haven 1053 - Nieuwe Weg 1  
B-2070 Zwijndrecht  
☎ +32 3 250 91 11  
✉ +32 3 252 84 33  
  
INEOS Derivatives Lavera SAS  
Avenue de la bienfaisance BP6  
FR-13117 Lavera  
☎ +33 4 42 35 80 00

## 1.4. Emergency telephone number

24h/24h :  
+32 14 58 45 45 (BIG)

## SECTION 2: Hazards identification

## 2.1. Classification of the substance or mixture

Not classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

## 2.2. Label elements

Not classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

## 2.3. Other hazards

No other hazards known

## SECTION 3: Composition/information on ingredients

## 3.1. Substances

| Name<br>REACH Registration No | CAS No<br>EC No | Conc. (C) | Classification according to CLP | Note | Remark  | M-factors and<br>ATE |
|-------------------------------|-----------------|-----------|---------------------------------|------|---------|----------------------|
| polyethylene glycol           | 25322-68-3      | 100%      |                                 | (2)  | Polymer |                      |

(2) Substance with a Community workplace exposure limit

# PEG400

## 3.2. Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General:

If you feel unwell, consult a doctor/medical service.

#### After inhalation:

Remove victim into fresh air. In case of respiratory problems, consult a doctor/medical service.

#### After skin contact:

If possible, wipe up/dry remove chemical. Then rinse/shower immediately with (lukewarm) water.

#### After eye contact:

Rinse immediately with (lukewarm) water. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, consult a doctor/medical service.

#### After ingestion:

Rinse mouth with water. If you feel unwell, consult a doctor/medical service. Do not wait for symptoms to occur to consult Poison Center.

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

#### 4.2.1 Acute symptoms

##### After inhalation:

EXPOSURE TO HIGH CONCENTRATIONS: Irritation of the respiratory tract. Irritation of the nasal mucous membranes.

##### After skin contact:

No effects known.

##### After eye contact:

Redness of the eye tissue.

##### After ingestion:

No effects known.

#### 4.2.2 Delayed symptoms

No effects known.

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

If applicable and available it will be listed below.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### 5.1.1 Suitable extinguishing media:

Small fire: Quick-acting ABC powder extinguisher, Quick-acting BC powder extinguisher, Quick-acting class B foam extinguisher, Quick-acting CO2 extinguisher.

Major fire: Class B foam (alcohol-resistant), Water spray if puddle cannot expand.

#### 5.1.2 Unsuitable extinguishing media:

Small fire: Water (quick-acting extinguisher, reel); risk of puddle expansion.

Major fire: Water; risk of puddle expansion.

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

Upon combustion: CO and CO2 are formed.

### 5.3. Advice for firefighters

#### 5.3.1 Instructions:

No specific fire-fighting instructions required.

#### 5.3.2 Special protective equipment for fire-fighters:

Gloves (EN 374). Protective clothing (EN 14605 or EN 13034). Heat/fire exposure: self-contained breathing apparatus (EN 136 + EN 137).

## SECTION 6: Accidental release measures

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

No naked flames. Exposure to fire/heat: keep upwind. Exposure to fire/heat: have neighbourhood close doors and windows.

#### 6.1.1 Protective equipment for non-emergency personnel

See section 8.2

#### 6.1.2 Protective equipment for emergency responders

Gloves (EN 374). Protective clothing (EN 14605 or EN 13034).

Suitable protective clothing

See section 8.2

### 6.2. Environmental precautions

Contain released product, collect/pump into suitable containers. Plug the leak, cut off the supply.

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

# PEG400

Take up liquid spill into inert absorbent material. Scoop absorbed substance into closing containers. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

## 6.4. Reference to other sections

See section 13.

## SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

### 7.1. Precautions for safe handling

Keep away from naked flames/heat. In finely divided state: use spark-/explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Product is stable up to temperature of 250°C. Product will decompose at higher temperatures. Decomposition of product will induce a significant increase of pressure and temperature. Therefore the decomposition temperature of the product should be tested first if product can/will be heated > 250°C. Observe normal hygiene standards. Keep container tightly closed.

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

#### 7.2.1 Safe storage requirements:

Meet the legal requirements. Store in a dry area. May be stored under nitrogen.

#### 7.2.2 Keep away from:

Heat sources, oxidizing agents, (strong) acids, (strong) bases, moisture.

#### 7.2.3 Suitable packaging material:

Stainless steel, carbon steel, HDPE.

#### 7.2.4 Non suitable packaging material:

Copper.

### 7.3. Specific end use(s)

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 Occupational exposure

##### a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

##### USA (TLV-ACGIH)

|                                 |                                                 |                      |
|---------------------------------|-------------------------------------------------|----------------------|
| Polyethylene Glycols (MW > 200) | Time-weighted average exposure limit 8 h (WEEL) | 10 mg/m <sup>3</sup> |
|---------------------------------|-------------------------------------------------|----------------------|

##### b) National biological limit values

If limit values are applicable and available these will be listed below.

#### 8.1.2 Sampling methods

If applicable and available it will be listed below.

#### 8.1.3 Applicable limit values when using the substance or mixture as intended

If limit values are applicable and available these will be listed below.

#### 8.1.4 Threshold values

If applicable and available it will be listed below.

#### 8.1.5 Control banding

If applicable and available it will be listed below.

### 8.2. Exposure controls

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

#### 8.2.1 Appropriate engineering controls

Keep away from naked flames/heat. In finely divided state: use spark-/explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Product is stable up to temperature of 250°C. Product will decompose at higher temperatures. Decomposition of product will induce a significant increase of pressure and temperature. Therefore the decomposition temperature of the product should be tested first if product can/will be heated > 250°C. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

#### 8.2.2 Individual protection measures, such as personal protective equipment

Observe normal hygiene standards. Do not eat, drink or smoke during work.

##### a) Respiratory protection:

Full face mask with filter type A at conc. in air > exposure limit.

##### b) Hand protection:

Protective gloves against chemicals (EN 374).

##### c) Eye protection:

Eye protection not required in normal conditions.

##### d) Skin protection:

Protective clothing (EN 14605 or EN 13034).

#### 8.2.3 Environmental exposure controls:

See sections 6.2, 6.3 and 13

# PEG400

## SECTION 9: Physical and chemical properties

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

|                           |                                                            |
|---------------------------|------------------------------------------------------------|
| Physical form             | Liquid                                                     |
| Colour                    | Colourless                                                 |
| Odour                     | Characteristic odour                                       |
| Odour threshold           | No data available in the literature                        |
| Melting point             | 4 °C - 8 °C                                                |
| Boiling point             | No data available in the literature                        |
| Flammability              | Not classified as flammable                                |
| Explosion limits          | No data available in the literature                        |
| Flash point               | 200 °C                                                     |
| Auto-ignition temperature | > 360 °C                                                   |
| Decomposition temperature | > 250 °C                                                   |
| pH                        | 4.5 - 7.0 ; 5 %                                            |
| Kinematic viscosity       | Not determined                                             |
| Dynamic viscosity         | 0.007995 Pa.s - 0.008558 Pa.s ; 100 °C                     |
| Solubility                | Water ; complete                                           |
| Log Kow                   | -0.7 ; Experimental value ; Equivalent to OECD 107 ; 30 °C |
| Vapour pressure           | < 0.01 hPa ; 20 °C                                         |
| Absolute density          | 1126 kg/m <sup>3</sup>                                     |
| Relative density          | 1.126                                                      |
| Relative vapour density   | > 1                                                        |
| Particle size             | Not applicable (liquid)                                    |

### 9.2. Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Heating increases the fire hazard.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Reacts with (strong) oxidizers. Reacts with (some) acids.

### 10.4. Conditions to avoid

#### Precautionary measures

Keep away from naked flames/heat. In finely divided state: use spark-/explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Product is stable up to temperature of 250°C. Product will decompose at higher temperatures. Decomposition of product will induce a significant increase of pressure and temperature. Therefore the decomposition temperature of the product should be tested first if product can/will be heated > 250°C.

### 10.5. Incompatible materials

Oxidizing agents, (strong) acids, (strong) bases, moisture.

### 10.6. Hazardous decomposition products

Upon combustion: CO and CO<sub>2</sub> are formed.

## SECTION 11: Toxicological information

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

#### 11.1.1 Test results

#### Acute toxicity

#### PEG400

No (test)data available  
polyethylene glycol

| Route of exposure | Parameter | Method | Value         | Exposure time | Species | Value determination | Remark |
|-------------------|-----------|--------|---------------|---------------|---------|---------------------|--------|
| Oral              | LD50      |        | > 15000 mg/kg |               | Rat     |                     |        |
| Dermal            | LD50      |        | > 20000 mg/kg |               |         |                     |        |

#### Conclusion

Not classified for acute toxicity

#### Corrosion/irritation

Reason for revision: 1.1; 7.2.3

Publication date: 2000-12-10

Date of revision: 2025-03-31

Revision number: 0400

BIG number: 50732

4 / 8

# PEG400

## PEG400

No (test)data available

### Conclusion

Not classified as irritating to the respiratory system  
Not classified as irritating to the skin  
Not classified as irritating to the eyes

## Respiratory or skin sensitisation

## PEG400

No (test)data available

### Conclusion

Not classified as sensitizing for inhalation  
Not classified as sensitizing for skin

## Specific target organ toxicity

## PEG400

No (test)data available

### Conclusion

Not classified for subchronic toxicity

## Mutagenicity (in vitro)

## PEG400

No (test)data available

## Mutagenicity (in vivo)

## PEG400

No (test)data available

### Conclusion

Not classified for mutagenic or genotoxic toxicity

## Carcinogenicity

## PEG400

No (test)data available

### Conclusion

Not classified for carcinogenicity

## Reproductive toxicity

## PEG400

No (test)data available

### Conclusion

Not classified for reprotoxic or developmental toxicity

## Aspiration hazard

## PEG400

Not classified for aspiration toxicity

## Toxicity other effects

## PEG400

No (test)data available

## Chronic effects from short and long-term exposure

## PEG400

No effects known.

## 11.2. Information on other hazards

No evidence of endocrine disrupting properties

## SECTION 12: Ecological information

### 12.1. Toxicity

#### PEG400

|                       | Parameter | Method   | Value      | Duration | Species             | Test design   | Fresh/salt water | Value determination                          |
|-----------------------|-----------|----------|------------|----------|---------------------|---------------|------------------|----------------------------------------------|
| Acute toxicity fishes | LC50      | OECD 203 | > 100 mg/l | 96 h     | Poecilia reticulata | Static system | Fresh water      | Experimental value;<br>Nominal concentration |

Reason for revision: 1.1; 7.2.3

Publication date: 2000-12-10

Date of revision: 2025-03-31

Revision number: 0400

BIG number: 50732

5 / 8

# PEG400

|                                         |       |          |            |      |                         |               |             |                                           |
|-----------------------------------------|-------|----------|------------|------|-------------------------|---------------|-------------|-------------------------------------------|
| Acute toxicity crustacea                | EC50  | OECD 202 | > 100 mg/l | 48 h | Daphnia magna           | Static system | Fresh water | Experimental value; Locomotor effect      |
| Toxicity algae and other aquatic plants | ErC50 | OECD 201 | > 100 mg/l | 96 h | Desmodesmus subspicatus | Static system | Fresh water | Experimental value; Nominal concentration |

## Conclusion

Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008

## 12.2. Persistence and degradability

### PEG400

#### Biodegradation water

| Method    | Value                    | Duration  | Value determination |
|-----------|--------------------------|-----------|---------------------|
| OECD 301D | 75 %; Oxygen consumption | 28 day(s) | Experimental value  |

## Conclusion

### Water

Readily biodegradable in water

## 12.3. Bioaccumulative potential

### PEG400

#### Log Kow

| Method                 | Remark | Value | Temperature | Value determination |
|------------------------|--------|-------|-------------|---------------------|
| Equivalent to OECD 107 |        | -0.7  | 30 °C       | Experimental value  |

## Conclusion

Not bioaccumulative

## 12.4. Mobility in soil

### PEG400

#### (log) Koc

| Parameter | Method   | Value | Value determination |
|-----------|----------|-------|---------------------|
| log Koc   | OECD 121 | 1.9   | Experimental value  |

## Conclusion

Highly mobile in soil

## 12.5. Results of PBT and vPvB assessment

Substance does not meet the criteria of PBT, nor the criteria of vPvB according to Annex XIII of Regulation (EC) No 1907/2006, so is neither PBT nor vPvB.

## 12.6. Endocrine disrupting properties

No evidence of endocrine disrupting properties

## 12.7. Other adverse effects

### PEG400

#### Greenhouse gases

Not included in the list of fluorinated greenhouse gases (Regulation (EU) No 2024/573)

#### Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

## SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

### 13.1. Waste treatment methods

#### 13.1.1 Provisions relating to waste

##### European Union

Can be considered as non hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).

07 01 99 (wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals: wastes not otherwise specified).

Depending on branch of industry and production process, also other waste codes may be applicable.

#### 13.1.2 Disposal methods

Remove waste in accordance with local and/or national regulations. Do not discharge into drains or the environment. Dispose of at authorized waste collection point.

#### 13.1.3 Packaging/Container

##### European Union

Waste material code packaging (Directive 2008/98/EC).

15 01 04 (metallic packaging).

# PEG400

## SECTION 14: Transport information

### Road (ADR), Rail (RID), Inland waterways (ADN), Sea (IMDG/IMSBC), Air (ICAO-TI/IATA-DGR)

|                                                               |                                         |             |
|---------------------------------------------------------------|-----------------------------------------|-------------|
| 14.1. UN number or ID number                                  | Transport                               | Not subject |
| 14.2. UN proper shipping name                                 |                                         |             |
| 14.3. Transport hazard class(es)                              |                                         |             |
| Hazard identification number                                  |                                         |             |
| Class                                                         |                                         |             |
| Classification code                                           |                                         |             |
| 14.4. Packing group                                           |                                         |             |
| Packing group                                                 |                                         |             |
| Labels                                                        |                                         |             |
| 14.5. Environmental hazards                                   |                                         |             |
| Environmentally hazardous substance mark                      | no                                      |             |
| 14.6. Special precautions for user                            |                                         |             |
| Special provisions                                            |                                         |             |
| Limited quantities                                            |                                         |             |
| 14.7. Maritime transport in bulk according to IMO instruments |                                         |             |
| Annex II of MARPOL 73/78                                      | Not applicable, based on available data |             |

## SECTION 15: Regulatory information

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

#### European legislation:

VOC content Directive 2010/75/EU

| VOC content | Remark |
|-------------|--------|
| 0 %         |        |

Directive 2012/18/EU (Seveso III)

Not subject to registration according to Directive 2012/18/EU (Seveso III)

REACH Candidate list

Does not contain component(s) included in candidate list of substances of very high concern (SVHC) for authorisation (Article 59 of Regulation (EC) No 1907/2006)

REACH Annex XIV - Authorisation

Does not contain component(s) included in Annex XIV of Regulation (EC) No 1907/2006: list of substances subject to authorisation

REACH Annex XVII - Restriction

Does not contain component(s) subject to restrictions of Annex XVII of Regulation (EC) No 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

#### National legislation United Kingdom

No data available

#### National legislation Ireland

No data available

#### Other relevant data

No data available

### 15.2. Chemical safety assessment

No chemical safety assessment is required.

## SECTION 16: Other information

|              |                                                                                |
|--------------|--------------------------------------------------------------------------------|
| (*)          | INTERNAL CLASSIFICATION BY BIG                                                 |
| ADI          | Acceptable daily intake                                                        |
| AOEL         | Acceptable operator exposure level                                             |
| ATE          | Acute Toxicity Estimate                                                        |
| BCF          | Bioconcentration Factor                                                        |
| BEI          | Biological Exposure Indices                                                    |
| CLP (EU-GHS) | Classification, labelling and packaging (Globally Harmonised System in Europe) |
| DMEL         | Derived Minimal Effect Level                                                   |
| DNEL         | Derived No Effect Level                                                        |
| EC10         | Effect Concentration 10 %                                                      |
| EC50         | Effect Concentration 50 %                                                      |
| ErC50        | EC50 in terms of reduction of growth rate                                      |
| GLP          | Good Laboratory Practice                                                       |
| LC0          | Lethal Concentration 0 %                                                       |
| LC50         | Lethal Concentration 50 %                                                      |

Reason for revision: 1.1; 7.2.3

Publication date: 2000-12-10

Date of revision: 2025-03-31

Revision number: 0400

BIG number: 50732

7 / 8

# PEG400

|             |                                                                                   |
|-------------|-----------------------------------------------------------------------------------|
| LD50        | Lethal Dose 50 %                                                                  |
| LOAEC/LOAEL | Lowest Observed Adverse Effect Concentration/Lowest Observed Adverse Effect Level |
| NOAEC/NOAEL | No Observed Adverse Effect Concentration/No Observed Adverse Effect Level         |
| NOEC/NOEL   | No Observed Effect Concentration/No Observed Effect Level                         |
| OECD        | Organisation for Economic Co-operation and Development                            |
| PBT         | Persistent, Bioaccumulative & Toxic                                               |
| PNEC        | Predicted No Effect Concentration                                                 |
| STP         | Sludge Treatment Process                                                          |
| vPvB        | very Persistent & very Bioaccumulative                                            |

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.