

## INEOX PEG4000 POLYGLYCOL 4000

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

## 1.1. Product identifier

**Product name** : INEOX PEG4000  
**Synonyms** : PEG4000PH; PEG4000ST; polyethylene glycol 4000; 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** : 4000.00 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

## 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

May form explosible dust-air mixture if dispersed

## SECTION 3: Composition/information on ingredients

## 3.1. Substances

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

## 3.2. Mixtures

Not applicable

# INEOX PEG4000

## 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. Soap may be used.

#### 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, Class A foam extinguisher, Water (quick-acting extinguisher, reel).

Major fire: Water, Class A foam.

#### 5.1.2 Unsuitable extinguishing media:

Small fire: Quick-acting BC powder extinguisher, Quick-acting CO2 extinguisher.

### 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). Dust cloud production: self-contained breathing apparatus (EN 136 + EN 137).

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

Prevent dust cloud formation, e.g. by wetting. No naked flames.

#### 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). Dust cloud production: self-contained breathing apparatus (EN 136 + EN 137).

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. Knock down/dilute dust cloud with water spray.

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

Stop dust cloud by humidifying. Scoop solid spill into closing containers. Powdered: do not use compressed air for pumping over spills. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

### 6.4. Reference to other sections

See section 13.

# INEOX PEG4000

## 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

Avoid raising dust. Keep away from naked flames/heat. In finely divided state: use spark-/explosionproof appliances. Finely divided: keep away from ignition sources/sparks. 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, ignition sources, oxidizing agents, (strong) acids, (strong) bases, moisture.

#### 7.2.3 Suitable packaging material:

Stainless steel, carbon steel.

#### 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.

##### 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

Avoid raising dust. Keep away from naked flames/heat. In finely divided state: use spark-/explosionproof appliances. Finely divided: keep away from ignition sources/sparks. 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:

Dust production: dust mask with filter type P1.

##### b) Hand protection:

Protective gloves against chemicals (EN 374).

##### c) Eye protection:

Safety glasses (EN 166). In case of dust production: protective goggles (EN 166).

##### d) Skin protection:

Protective clothing (EN 14605 or EN 13034).

#### 8.2.3 Environmental exposure controls:

See sections 6.2, 6.3 and 13

## SECTION 9: Physical and chemical properties

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

Physical form	Solid
Viscosity	Waxy
Odour	Characteristic odour
Odour threshold	No data available in the literature
Colour	Colourless
Particle size	No data available in the literature
Explosion limits	No data available in the literature
Flammability	Not classified as flammable
Log Kow	-0.698 ; Experimental value ; Equivalent to OECD 107 ; 30 °C
Dynamic viscosity	130 mPa.s ; 100 °C

Reason for revision: 878/2020

Publication date: 2000-02-10

Date of revision: 2022-12-07

Revision number: 0200

BIG number: 50740

3 / 7

# INEOX PEG4000

Kinematic viscosity	Not determined
Melting point	54 °C - 58 °C
Boiling point	No data available in the literature
Relative vapour density	Not applicable (solid)
Vapour pressure	< 0.01 hPa ; 20 °C
Solubility	Water ; 50 g/100 ml
Relative density	1.09 ; 60 °C
Absolute density	1090 kg/m <sup>3</sup> ; 60 °C
Decomposition temperature	> 200 °C
Auto-ignition temperature	> 400 °C
Flash point	> 240 °C
pH	No data available in the literature

## 9.2. Other information

Evaporation rate	Ether
------------------	-------

## 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

Avoid raising dust. Keep away from naked flames/heat. In finely divided state: use spark-/explosionproof appliances. Finely divided: keep away from ignition sources/sparks.

### 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

##### INEOX PEG4000

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

##### INEOX PEG4000

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

##### INEOX PEG4000

No (test)data available

#### Conclusion

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

#### Specific target organ toxicity

Reason for revision: 878/2020

Publication date: 2000-02-10

Date of revision: 2022-12-07

Revision number: 0200

BIG number: 50740

4 / 7

# INEOX PEG4000

## INEOX PEG4000

No (test)data available

### Conclusion

Not classified for subchronic toxicity

## Mutagenicity (in vitro)

## INEOX PEG4000

No (test)data available

## Mutagenicity (in vivo)

## INEOX PEG4000

No (test)data available

### Conclusion

Not classified for mutagenic or genotoxic toxicity

## Carcinogenicity

## INEOX PEG4000

No (test)data available

### Conclusion

Not classified for carcinogenicity

## Reproductive toxicity

## INEOX PEG4000

No (test)data available

### Conclusion

Not classified for reprotoxic or developmental toxicity

## Aspiration hazard

Not classified for aspiration toxicity

## Toxicity other effects

## INEOX PEG4000

No (test)data available

## Chronic effects from short and long-term exposure

## INEOX PEG4000

No effects known.

## 11.2. Information on other hazards

No evidence of endocrine disrupting properties

## SECTION 12: Ecological information

### 12.1. Toxicity

## INEOX PEG4000

	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; Nominal concentration
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

## INEOX PEG4000

#### Biodegradation water

Method	Value	Duration	Value determination
OECD 301D	74.85 %; Oxygen consumption	28 day(s)	Experimental value

#### Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN v1.92	1.994 h	1.5E6 /cm <sup>3</sup>	Calculated value

Reason for revision: 878/2020

Publication date: 2000-02-10

Date of revision: 2022-12-07

Revision number: 0200

BIG number: 50740

5 / 7

# INEOX PEG4000

## Conclusion

### Water

Readily biodegradable in water

## 12.3. Bioaccumulative potential

### INEOX PEG4000

#### BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF	BCFBAF v3.01	3.162 l/kg; Fresh weight		Pisces	Calculated value

#### Log Kow

Method	Remark	Value	Temperature	Value determination
Equivalent to OECD 107		-0.698	30 °C	Experimental value

## Conclusion

Low potential for bioaccumulation (BCF < 500)

## 12.4. Mobility in soil

### INEOX PEG4000

#### (log) Koc

Parameter	Method	Value	Value determination
log Koc	OECD 121	1.857	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

### INEOX PEG4000

#### Greenhouse gases

Not included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)

#### Ozone-depleting potential (ODP)

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

#### Groundwater

Groundwater pollutant

## 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).

## SECTION 14: Transport information

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

#### 14.1. UN number

Transport	Not subject
-----------	-------------

#### 14.2. UN proper shipping name

#### 14.3. Transport hazard class(es)

Hazard identification number	
Class	

Reason for revision: 878/2020

Publication date: 2000-02-10

Date of revision: 2022-12-07

Revision number: 0200

BIG number: 50740

6 / 7

# INEOX PEG4000

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

## 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)

#### National legislation United Kingdom

No data available

#### Other relevant data

No data available

### 15.2. Chemical safety assessment

No chemical safety assessment has been conducted.

## 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 %
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.

Reason for revision: 878/2020

Publication date: 2000-02-10

Date of revision: 2022-12-07

Revision number: 0200

BIG number: 50740

7 / 7