

SAFETY DATA SHEET

PolyEthylene Oxide Standard

Section 1. Identification

Product identifier : PolyEthylene Oxide Standard

Part no. : PL2080-0101, PL2084-2010, PL2084-2001, PL2084-2005, PL2083-5010, PL2083-5001, PL2083-5005, PL2083-6010, PL2083-6001, PL2083-6005, PL2084-1010, PL2084-1001, PL2084-1005, PL2083-7010, PL2083-7001, PL2083-7005, PL2083-1001, PL2083-1005, PL2083-8010, PL2083-8001, PL2083-8005, PL2083-2010, PL2083-2001, PL2083-2005, PL2083-9010, PL2083-9001, PL2083-9005, PL2083-3010, PL2083-3001, PL2083-3005, PL2084-0010, PL2084-0001, PL2084-0005, PL2083-4010, PL2083-4001, PL2083-4005, PL2083-1010

Chemical identity : Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated

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

Identified uses : Reagents and Standards for Analytical Chemistry Laboratory Use
For Research and Development Only

PL2080-0101	PEO calibration kit
PL2084-2010	PEO NOMINAL MP 1.5M 10G
PL2084-2001	PEO NOMINAL MP 1.5M 1G
PL2084-2005	PEO NOMINAL MP 1.5M 5G
PL2083-5010	PEO NOMINAL MP 100K 10G
PL2083-5001	PEO NOMINAL MP 100K 1G
PL2083-5005	PEO NOMINAL MP 100K 5G
PL2083-6010	PEO NOMINAL MP 130K 10G
PL2083-6001	PEO NOMINAL MP 130K 1G
PL2083-6005	PEO NOMINAL MP 130K 5G
PL2084-1010	PEO NOMINAL MP 1M 10G
PL2084-1001	PEO NOMINAL MP 1M 1G
PL2084-1005	PEO NOMINAL MP 1M 5G
PL2083-7010	PEO NOMINAL MP 200K 10G
PL2083-7001	PEO NOMINAL MP 200K 1G
PL2083-7005	PEO NOMINAL MP 200K 5G
PL2083-1001	PEO NOMINAL MP 20K 1G
PL2083-1005	PEO NOMINAL MP 20K 5G
PL2083-8010	PEO NOMINAL MP 300K 10G
PL2083-8001	PEO NOMINAL MP 300K 1G
PL2083-8005	PEO NOMINAL MP 300K 5G
PL2083-2010	PEO NOMINAL MP 30K 10G
PL2083-2001	PEO NOMINAL MP 30K 1G
PL2083-2005	PEO NOMINAL MP 30K 5G
PL2083-9010	PEO NOMINAL MP 500K 10G
PL2083-9001	PEO NOMINAL MP 500K 1G
PL2083-9005	PEO NOMINAL MP 500K 5G
PL2083-3010	PEO NOMINAL MP 50K 10G
PL2083-3001	PEO NOMINAL MP 50K 1G
PL2083-3005	PEO NOMINAL MP 50K 5G
PL2084-0010	PEO NOMINAL MP 700K 10G
PL2084-0001	PEO NOMINAL MP 700K 1G
PL2084-0005	PEO NOMINAL MP 700K 5G
PL2083-4010	PEO NOMINAL MP 70K 10G
PL2083-4001	PEO NOMINAL MP 70K 1G
PL2083-4005	PEO NOMINAL MP 70K 5G
PL2083-1010	PEO NOMINAL MP 20K 10G

Section 1. Identification

Supplier/Manufacturer : Agilent Technologies Australia Pty Ltd
679 Springvale Road
Mulgrave
Victoria 3170, Australia
1800 802 402

Emergency telephone number (with hours of operation) : CHEMTREC®: +(61)-290372994

Section 2. Hazard(s) identification

Classification of the substance or mixture

Not classified.

GHS label elements

Signal word : No signal word.

Hazard statements : No known significant effects or critical hazards.

Precautionary statements

Prevention : Not applicable.

Response : Not applicable.

Storage : Not applicable.

Disposal : Not applicable.

Supplemental label elements

Additional warning phrases : Not applicable.

Other hazards which do not result in classification :  May form explosible dust-air mixture if dispersed.

Section 3. Composition and ingredient information

Substance/mixture : Substance

Ingredient name	% (w/w)	Identifiers
 Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy- Ethane-1,2-diol, ethoxylated	100	CAS: 25322-68-3 EC: 500-038-2

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

The total concentration of ingredients in this product, reported or not in this section, is 100%.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Section 4. First aid measures

- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
- Inhalation** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
irritation
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
- Skin contact** : No specific data.
- Ingestion** : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical powder.
- Unsuitable extinguishing media** : Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.

- Specific hazards arising from the chemical** : May form explosible dust-air mixture if dispersed.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flames, smoking or flames in hazard area. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

- Methods for cleaning up** : Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

Section 8. Exposure controls and personal protection

Ingredient name	Exposure limits
 Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	DFG MAC-values list (Germany, 7/2025) [Polyethylene glycol (average molecular weight 200 – 600)] Develop C. TWA 8 hours: 200 mg/m ³ . Form: inhalable fraction. PEAK 15 minutes: 400 mg/m ³ 4 times per shift [Interval: 1 hour]. Form: inhalable fraction.

Biological exposure indices

No exposure indices known.

Appropriate engineering controls

: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. If operating conditions cause high dust concentrations to be produced, use dust goggles.

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state	: Solid. [Powder. (Molecular weight (Low) = liquid , Molecular weight (High) = Solid.)]				
Colour	: White.				
Odour	: Odourless.				
Odour threshold	: Not available.				
pH	: 4.78 [OECD 122]				
Melting point/freezing point	: Various				
Boiling point or initial boiling point and boiling range	: 250°C (482°F)				
Flash point	: Closed cup: 171 to 235°C (339.8 to 455°F) Open cup: 240°C (464°F)				
Evaporation rate	: Not available.				
Flammability	: Not available.				
Lower and upper explosion limit/flammability limit	: Not applicable.				
Vapour pressure	: 0.00000004 kPa (0.0000003 mm Hg)				
Relative vapour density	: Not applicable.				
Relative density	: 1.1 to 1.3				
Density	: 1.116 g/cm ³ [25°C (77°F)] [OECD 109]				
Solubility(ies)	<table border="1"> <thead> <tr> <th>Media</th><th>Result</th></tr> </thead> <tbody> <tr> <td>water</td><td>Soluble</td></tr> </tbody> </table>	Media	Result	water	Soluble
Media	Result				
water	Soluble				
Solubility in water	: 256.084 g/l [OECD 105]				
Partition coefficient: n-octanol/water	: 0.2				
Auto-ignition temperature	: 360°C (680°F)				
Decomposition temperature	: Not available.				
Viscosity	: Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C (104°F)): 191.672 mm ² /s (191.672 cSt) [OECD 114]				

Particle characteristics

Median particle size	: Not available.
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Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Prevent dust accumulation.
Incompatible materials	: Reactive or incompatible with the following materials: oxidising materials

Section 10. Stability and reactivity

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Conclusion/Summary [Product] : Not available.

Skin corrosion/irritation

Product/ingredient name

Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated

Result

Rabbit - Skin - Mild irritant

Rabbit - Skin - Mild irritant

Rabbit - Skin - Mild irritant

Rabbit - Skin - Mild irritant

Rabbit - Skin - Mild irritant

Duration of treatment/
exposure: 24 hours
Amount/concentration
applied: 500 mg
Amount/concentration
applied: 500 mg
Duration of treatment/
exposure: 24 hours
Amount/concentration
applied: 500 mg
Amount/concentration
applied: 500 mg
Amount/concentration
applied: 500 mg

Conclusion/Summary [Product] : May cause skin irritation.

Serious eye damage/eye irritation

Product/ingredient name

Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated

Result

Rabbit - Eyes - Mild irritant

Rabbit - Eyes - Mild irritant

Rabbit - Eyes - Mild irritant

Rabbit - Eyes - Mild irritant

Duration of treatment/
exposure: 24 hours
Amount/concentration
applied: 500 mg
Duration of treatment/
exposure: 24 hours
Amount/concentration
applied: 500 mg
Amount/concentration
applied: 500 mg
Amount/concentration
applied: 500 mg
Amount/concentration
applied: 100 μ L

Conclusion/Summary [Product] : May cause eye irritation.

Respiratory corrosion/irritation

Conclusion/Summary [Product] : May cause respiratory irritation.

Respiratory or skin sensitization

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Section 11. Toxicological information

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Conclusion/Summary [Product] : Not available.

Reproductive toxicity

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
- Inhalation** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
irritation
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
- Skin contact** : No specific data.
- Ingestion** : No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Section 11. Toxicological information

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.

[Product]

General : Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy-Ethane-1,2-diol, ethoxylated	28000	N/A	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name

Result

Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy-Ethane-1,2-diol, ethoxylated

Acute - LC50 - Fresh water

>1000 mg/l [96 hours]

Fish - Atlantic salmon - *Salmo salar* - Parr

Acute - EC50 - Fresh water

>100 mg/l [48 hours]

Daphnia - *Daphnia magna*

Conclusion/Summary : Not available.

[Product]

Persistence and degradability

Product/ingredient name

Result

Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy-Ethane-1,2-diol, ethoxylated

OECD [Ready Biodegradability - Closed Bottle Test]

74.85% [28 days] - Readily

Aerobic - 4 mg/l

Conclusion/Summary : Not available.

[Product]

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy-Ethane-1,2-diol, ethoxylated	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy-Ethane-1,2-diol, ethoxylated	0.2	3.2	Low

Mobility in soil

Section 12. Ecological information

Soil/water partition coefficient : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	ADG	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

Standard for the Uniform Scheduling of Medicines and Poisons

Not regulated.

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Section 15. Regulatory information

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia	: This material is listed or exempted.
New Zealand	: This material is listed or exempted.
United States	: This material is active or exempted.

Section 16. Any other relevant information

History

Date of issue/Date of revision	: 03/09/2026
Date of previous issue	: 16/10/2023
Version	: 7
Key to abbreviations	: ADG = Australian Dangerous Goods ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) N/A = Not available RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail SGG = Segregation Group SUSMP = Standard Uniform Schedule of Medicine and Poisons UN = United Nations

Procedure used to derive the classification

Classification

Not classified.

📌 Indicates information that has changed from previously issued version.

Notice to reader

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