

SAFETY DATA SHEET

PolyEthylene Oxide Standard

Section 1. Identification

Product identifier : PolyEthylene Oxide Standard

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

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

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, Inc.
5301 Stevens Creek Blvd
Santa Clara, CA 95051, USA
800-227-9770

Emergency telephone number (with hours of operation) : CHEMTREC®: 1-800-424-9300

Section 2. Hazard identification

Classification of the substance or mixture

 COMBUSTIBLE DUSTS - Category 1

GHS label elements

Signal word : Warning

Hazard statements : May form combustible dust concentrations in air.

Precautionary statements

Prevention : Not applicable.

Response : Not applicable.

Storage : Not applicable.

Disposal : Not applicable.

Supplemental label elements : Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Prevent dust accumulation.

Section 3. Composition/information on ingredients

Substance/mixture : Substance

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

Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

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.

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.

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

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.

Most important symptoms/effects, acute and delayed

Section 4. First-aid measures

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. Fire-fighting 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 flares, smoking or flames in hazard area. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized 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 materials 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, labeled 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). Do not ingest. Avoid contact with eyes, skin and clothing. 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. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. 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 grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.
- 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 oxidizing 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	OARS WEEL (United States, 6/2025) TWA 8 hours: 10 mg/m ³ .

Biological exposure indices

No exposure indices known.

Appropriate engineering controls

: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor 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, vapor 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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

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

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.)]				
Color	: White.				
Odor	: Odorless.				
Odor threshold	: Not available.				
pH	: 4.78 [OECD 122]				
Melting point/freezing point	: Various				
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 (solid, gas)	: Not available.				
Upper/lower flammability or explosive limits	: Not applicable.				
Vapor pressure	: 0.00000004 kPa (0.0000003 mm Hg)				
Vapor density	: Not applicable.				
Relative density	: 1.1 to 1.3				
Density	: 1.116 g/cm ³ [25°C (77°F)] [OECD 109]				
Solubility	<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 grounding and bonding containers and equipment before transferring material. Prevent dust accumulation.

Section 10. Stability and reactivity

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials

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 uL

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

Respiratory corrosion/irritation

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

Respiratory corrosion/irritation

Section 11. Toxicological information

Not available.

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

Respiratory or skin sensitization

Skin

Conclusion/Summary : Not available.
[Product]

Respiratory

Conclusion/Summary : Not available.
[Product]

Germ cell mutagenicity

Conclusion/Summary : Not available.
[Product]

Carcinogenicity

Conclusion/Summary : Not available.
[Product]

Reproductive toxicity

Conclusion/Summary : Not available.
[Product]

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely : Not available.
routes of exposure

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

Section 11. Toxicological information

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 and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects	: Not available.
Potential delayed effects	: Not available.

Long term exposure

Potential immediate effects	: Not available.
Potential delayed effects	: Not available.

Potential chronic health effects

Conclusion/Summary [Product]	: Not available.
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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 (vapors) (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] Acute - EC50 - Fresh water >100 mg/l [48 hours] Fish - Atlantic salmon - <i>Salmo salar</i> - Parr Daphnia - <i>Daphnia magna</i>
Conclusion/Summary [Product]	: Not available.

Persistence and degradability

Product/ingredient name	Result
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Section 12. Ecological information

 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 [Product] : Not available.

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

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 minimized 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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	TDG Classification	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.

Section 14. Transport information

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.

Section 15. Regulatory information

Canadian lists

Canadian NPRI : This material is not listed.

CEPA Toxic substances : This material is not listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Canada : This material is listed or exempted.

United States : This material is active or exempted.

Section 16. Other information

History

Date of issue/Date of revision : 09/03/2026

Date of previous issue : 10/16/2023

Version : 7

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
DOT = Department of Transportation
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
HPR = Hazardous Products Regulations
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
IMO = International Maritime Organization
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
SGG = Segregation Group
TDG = Transportation of Dangerous Goods
UN = United Nations

Procedure used to derive the classification

Section 16. Other information

Classification	Justification
 COMBUSTIBLE DUSTS - Category 1	On basis of test data

 Indicates information that has changed from previously issued version.

Notice to reader

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