SAFETY DATA SHEET

Agilent Technologies

PEG Calibration Kit, Part Number PL2070-0100

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

1.1 Product identifier

Product name : PEG Calibration Kit, Part Number PL2070-0100

CAS number :

Polyethylene Glycol nominal Mp 106	111-46-6
Polyethylene Glycol nominal Mp 194 - 20000	25322-68-3

Part no. (chemical kit) : PL2070-0100

Part no. :

Polyethylene Glycol nominal Mp 106	Not available.
Polyethylene Glycol nominal Mp 194 - 20000	*

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

Identified uses : Reagents and Standards for Analytical Chemistry Laboratory Use

Polyethylene Glycol nominal Mp 106	0.5 g
Polyethylene Glycol nominal Mp 194	0.5 g
Polyethylene Glycol nominal Mp 400	0.5 g
Polyethylene Glycol nominal Mp 600	0.5 g
Polyethylene Glycol nominal Mp 1000	0.5 g
Polyethylene Glycol nominal Mp 1500	0.5 g
Polyethylene Glycol nominal Mp 4000	0.5 g
Polyethylene Glycol nominal Mp 7000	0.5 g
Polyethylene Glycol nominal Mp 13000	0.5 g
Polyethylene Glycol nominal Mp 20000	0.5 g

Uses advised against : None known.

1.3 Details of the supplier of the safety data sheet

Agilent Technologies LDA UK Ltd.
5500 Lakeside Cheadle Royal Business Park,
Cheadle, Cheshire, SK8 3GR
United Kingdom
Tel: +44 (0) 345 712 5292

e-mail address of person responsible for this SDS : pdl-msds_author@agilent.com

1.4 Emergency telephone number

Emergency telephone number (with hours of operation) : CHEMTREC®: +(44)-870-8200418

Note * :

***Polyethylene Glycol nominal Mp 194**
Polyethylene Glycol nominal Mp 400
Polyethylene Glycol nominal Mp 600
Polyethylene Glycol nominal Mp 1000
Polyethylene Glycol nominal Mp 1500
Polyethylene Glycol nominal Mp 4000
Polyethylene Glycol nominal Mp 7000
Polyethylene Glycol nominal Mp 13000
Polyethylene Glycol nominal Mp 20000

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Polyethylene Glycol nominal Mp 106 — Mono-constituent substance

Polyethylene Glycol nominal Mp 194 - 20000 — Mono-constituent substance

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

Polyethylene Glycol nominal Mp 106

H302 ACUTE TOXICITY (oral) Category 4

Polyethylene Glycol nominal Mp 106 — The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

Polyethylene Glycol nominal Mp 194 - 20000 — The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms : Polyethylene Glycol nominal Mp 106

Signal word : Polyethylene Glycol nominal Mp 106 — Warning

Polyethylene Glycol nominal Mp 194 - 20000 — No signal word.

Hazard statements : Polyethylene Glycol nominal Mp 106 — H302 - Harmful if swallowed.

Polyethylene Glycol nominal Mp 194 - 20000 — No known significant effects or critical hazards.

Precautionary statements

Prevention : Polyethylene Glycol nominal Mp 106 — P270 - Do not eat, drink or smoke when using this product.

P264 - Wash thoroughly after handling.

Polyethylene Glycol nominal Mp 194 - 20000 — Not applicable.

Response : Polyethylene Glycol nominal Mp 106 — Not applicable.

Polyethylene Glycol nominal Mp 194 - 20000 — Not applicable.

Storage : Polyethylene Glycol nominal Mp 106 — Not applicable.

Polyethylene Glycol nominal Mp 194 - 20000 — Not applicable.

Disposal : Polyethylene Glycol nominal Mp 106 — P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Polyethylene Glycol nominal Mp 194 - 20000 — Not applicable.

Supplemental label elements : Polyethylene Glycol nominal Mp 106 — Not applicable.

Polyethylene Glycol nominal Mp 194 - 20000 — Not applicable.

SECTION 2: Hazards identification

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Polyethylene Glycol nominal Mp 106 — Not applicable.
Polyethylene Glycol nominal Mp 194 - 20000 — Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Polyethylene Glycol nominal Mp 106 — Not applicable.
Polyethylene Glycol nominal Mp 194 - 20000 — Not applicable.

Tactile warning of danger : Polyethylene Glycol nominal Mp 106 — Not applicable.
Polyethylene Glycol nominal Mp 194 - 20000 — Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII :

PBT	P	B	T	vPvB	vP	vB
Polyethylene Glycol nominal Mp 106						
No	N/A	No	No	No	N/A	No
Polyethylene Glycol nominal Mp 194 - 20000						
No	N/A	No	No	No	N/A	No

Other hazards which do not result in classification : Polyethylene Glycol nominal Mp 106 — None known.
Polyethylene Glycol nominal Mp 194 - 20000 — May form combustible dust concentrations in air.

SECTION 3: Composition/information on ingredients

3.1 Substances : Polyethylene Glycol nominal Mp 106 — Mono-constituent substance
Polyethylene Glycol nominal Mp 194 - 20000 — Mono-constituent substance

Product/ingredient name	Identifiers	%	Classification	Type
Polyethylene Glycol nominal Mp 106				
2,2' -oxybisethanol	EC: 203-872-2 CAS: 111-46-6 Index: 603-140-00-6	100	Acute Tox. 4, H302	[1]
Polyethylene Glycol nominal Mp 194 - 20000				
Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy- Ethane-1,2-diol, ethoxylated	EC: 500-038-2 CAS: 25322-68-3	100	Not classified. **See Section 16 for the full text of the H statements declared above.**	[1]

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

SECTION 3: Composition/information on ingredients

Polyethylene Glycol nominal Mp 106 [1] Constituent
Polyethylene Glycol nominal Mp 194 - 20000 [1] Constituent

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

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact

: Polyethylene Glycol nominal Mp 106: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Polyethylene Glycol nominal Mp 194 - 20000: 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

: Polyethylene Glycol nominal Mp 106: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Polyethylene Glycol nominal Mp 194 - 20000: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Skin contact

: Polyethylene Glycol nominal Mp 106: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Polyethylene Glycol nominal Mp 194 - 20000: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Ingestion

: Polyethylene Glycol nominal Mp 106: Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Polyethylene Glycol nominal Mp 194 - 20000: 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.

Protection of first-aiders

: Polyethylene Glycol nominal Mp 106: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Polyethylene Glycol nominal Mp 194 - 20000: No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

SECTION 4: First aid measures

Eye contact	:	Polyethylene Glycol nominal Mp 106	No specific data.
		Polyethylene Glycol nominal Mp 194 - 20000	Adverse symptoms may include the following: irritation redness
Inhalation	:	Polyethylene Glycol nominal Mp 106	No specific data.
		Polyethylene Glycol nominal Mp 194 - 20000	Adverse symptoms may include the following: respiratory tract irritation coughing
Skin contact	:	Polyethylene Glycol nominal Mp 106	No specific data.
		Polyethylene Glycol nominal Mp 194 - 20000	No specific data.
Ingestion	:	Polyethylene Glycol nominal Mp 106	No specific data.
		Polyethylene Glycol nominal Mp 194 - 20000	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	:	Polyethylene Glycol nominal Mp 106	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Polyethylene Glycol nominal Mp 194 - 20000	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:	Polyethylene Glycol nominal Mp 106	No specific treatment.
		Polyethylene Glycol nominal Mp 194 - 20000	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Polyethylene Glycol nominal Mp 106	Use an extinguishing agent suitable for the surrounding fire.
		Polyethylene Glycol nominal Mp 194 - 20000	Use dry chemical powder.
Unsuitable extinguishing media	:	Polyethylene Glycol nominal Mp 106	None known.
		Polyethylene Glycol nominal Mp 194 - 20000	Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	:	Polyethylene Glycol nominal Mp 106	In a fire or if heated, a pressure increase will occur and the container may burst.
		Polyethylene Glycol nominal Mp 194 - 20000	May form explosible dust-air mixture if dispersed.
Hazardous combustion products	:	Polyethylene Glycol nominal Mp 106	Decomposition products may include the following materials: carbon dioxide carbon monoxide
		Polyethylene Glycol nominal Mp 194 - 20000	Decomposition products may include the following materials: carbon dioxide carbon monoxide

5.3 Advice for firefighters

SECTION 5: Firefighting measures

Special protective actions for fire-fighters	:	Polyethylene Glycol nominal Mp 106	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.
		Polyethylene Glycol nominal Mp 194 - 20000	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	:	Polyethylene Glycol nominal Mp 106	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
		Polyethylene Glycol nominal Mp 194 - 20000	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

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	Polyethylene Glycol nominal Mp 106	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 spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
		Polyethylene Glycol nominal Mp 194 - 20000	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 spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment.
For emergency responders	:	Polyethylene Glycol nominal Mp 106	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".
		Polyethylene Glycol nominal Mp 194 - 20000	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".
6.2 Environmental precautions	:	Polyethylene Glycol nominal Mp 106	Avoid dispersal of spilt 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).
		Polyethylene Glycol nominal Mp 194 - 20000	Avoid dispersal of spilt 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).

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	:	Polyethylene Glycol nominal Mp 106	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
		Polyethylene Glycol nominal Mp 194 - 20000	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 6: Accidental release measures

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures :

Polyethylene Glycol nominal Mp 106	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Polyethylene Glycol nominal Mp 194 - 20000	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 :

Polyethylene Glycol nominal Mp 106	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.
Polyethylene Glycol nominal Mp 194 - 20000	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.

7.2 Conditions for safe storage, including any incompatibilities

Storage :

Polyethylene Glycol nominal Mp 106	Store in accordance with local regulations. 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. 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.
Polyethylene Glycol nominal Mp 194 - 20000	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 7: Handling and storage

7.3 Specific end use(s)

Recommendations	:	Polyethylene Glycol nominal Mp 106	Industrial applications, Professional applications.
		Polyethylene Glycol nominal Mp 194 - 20000	Industrial applications, Professional applications.
Industrial sector specific solutions	:	Polyethylene Glycol nominal Mp 106	Not available.
		Polyethylene Glycol nominal Mp 194 - 20000	Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Polyethylene Glycol nominal Mp 106 2,2' -oxybisethanol	**EH40/2005 WELs (United Kingdom (UK), 1/2020).** TWA: 101 mg/m³ 8 hours. TWA: 23 ppm 8 hours.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
Polyethylene Glycol nominal Mp 106					
2,2' -oxybisethanol	DNEL	Long term Inhalation	12 mg/m³	General population	Local
	DNEL	Long term Inhalation	12 mg/m³	General population	Systemic
	DNEL	Long term Dermal	21 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	43 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	44 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	60 mg/m³	Workers	Local
Polyethylene Glycol nominal Mp 194 - 20000					
Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy- Ethane-1,2-diol, ethoxylated	DNEL	Long term Inhalation	7.14 mg/m³	General population	Systemic
	DNEL	Long term Oral	40 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	40 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	40.2 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	112 mg/kg bw/day	Workers	Systemic

PNECs

No PNECs available

SECTION 8: Exposure controls/personal protection

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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.

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.

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.

SECTION 9: Physical and chemical properties

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

9.1 Information on basic physical and chemical properties

Appearance

Physical state :	Polyethylene Glycol nominal Mp 106	Liquid. [Viscous liquid.]
	Polyethylene Glycol nominal Mp 194 - 20000	Solid. [Powder.]
Colour :	Polyethylene Glycol nominal Mp 106	Colourless.
	Polyethylene Glycol nominal Mp 194 - 20000	White.
Odour :	Polyethylene Glycol nominal Mp 106	Slight
	Polyethylene Glycol nominal Mp 194 - 20000	Odourless.

SECTION 9: Physical and chemical properties

Odour threshold :
Polyethylene Glycol nominal Mp 106 — Not available.
Polyethylene Glycol nominal Mp 194 - 20000 — Not available.

Melting point/freezing point :
Polyethylene Glycol nominal Mp 106 — Not available.
Polyethylene Glycol nominal Mp 194 - 20000 — Not available.

Initial boiling point and boiling range :
Polyethylene Glycol nominal Mp 106 — 245°C
Polyethylene Glycol nominal Mp 194 - 20000 — 250°C

Flammability :
Polyethylene Glycol nominal Mp 106 — Not applicable.
Polyethylene Glycol nominal Mp 194 - 20000 — Not available.

Upper/lower flammability or explosive limits :
Polyethylene Glycol nominal Mp 106 — Not available.
Polyethylene Glycol nominal Mp 194 - 20000 — Not applicable.

Flash point :
Polyethylene Glycol nominal Mp 106 — Closed cup: 143°C
Open cup: 138°C
Polyethylene Glycol nominal Mp 194 - 20000 — Closed cup: 171 to 235°C
Open cup: 199 to 238°C

Auto-ignition temperature :
Polyethylene Glycol nominal Mp 194 - 20000 — Not applicable.

Decomposition temperature :
Polyethylene Glycol nominal Mp 106 — Not available.
Polyethylene Glycol nominal Mp 194 - 20000 — Not available.

pH :
Polyethylene Glycol nominal Mp 106 — 5 to 8
Polyethylene Glycol nominal Mp 194 - 20000 — 5 to 7

Viscosity :
Polyethylene Glycol nominal Mp 106 — Kinematic (40°C): 30 mm^2/s
Polyethylene Glycol nominal Mp 194 - 20000 — Not applicable.

Solubility(ies) :

Media	Result
Polyethylene Glycol nominal Mp 106	
water	Soluble
Polyethylene Glycol nominal Mp 194 - 20000	
water	Soluble

Partition coefficient: n-octanol/water :
Polyethylene Glycol nominal Mp 106 — Not applicable.
Polyethylene Glycol nominal Mp 194 - 20000 — Not applicable.

Vapour pressure :
Polyethylene Glycol nominal Mp 106 — 0.0013 kPa (0.01 mm Hg)
Polyethylene Glycol nominal Mp 194 - 20000 — 0 kPa (0 mm Hg)

Evaporation rate :
Polyethylene Glycol nominal Mp 106 — Not available.
Polyethylene Glycol nominal Mp 194 - 20000 — Not available.

SECTION 9: Physical and chemical properties

Relative density	:	Polyethylene Glycol nominal Mp 106	1.12
		Polyethylene Glycol nominal Mp 194 - 20000	1.13
Vapour density	:	Polyethylene Glycol nominal Mp 106	Not available.
		Polyethylene Glycol nominal Mp 194 - 20000	Not applicable.
Explosive properties	:	Polyethylene Glycol nominal Mp 106	Not available.
		Polyethylene Glycol nominal Mp 194 - 20000	Not available.
Oxidising properties	:	Polyethylene Glycol nominal Mp 106	Not available.
		Polyethylene Glycol nominal Mp 194 - 20000	Not available.
Particle characteristics			
Median particle size	:	Polyethylene Glycol nominal Mp 106	Not applicable.
		Polyethylene Glycol nominal Mp 194 - 20000	Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	:	Polyethylene Glycol nominal Mp 106	No specific test data related to reactivity available for this product or its ingredients.
		Polyethylene Glycol nominal Mp 194 - 20000	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	Polyethylene Glycol nominal Mp 106	The product is stable.
		Polyethylene Glycol nominal Mp 194 - 20000	The product is stable.
10.3 Possibility of hazardous reactions	:	Polyethylene Glycol nominal Mp 106	Under normal conditions of storage and use, hazardous reactions will not occur.
		Polyethylene Glycol nominal Mp 194 - 20000	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	Polyethylene Glycol nominal Mp 106	No specific data.
		Polyethylene Glycol nominal Mp 194 - 20000	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.
10.5 Incompatible materials	:	Polyethylene Glycol nominal Mp 106	May react or be incompatible with oxidising materials.
		Polyethylene Glycol nominal Mp 194 - 20000	Reactive or incompatible with the following materials: oxidising materials

SECTION 10: Stability and reactivity

10.6 Hazardous decomposition products : Polyethylene Glycol nominal Mp 106: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Polyethylene Glycol nominal Mp 194 - 20000: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Polyethylene Glycol nominal Mp 106				
2,2' -oxybisethanol	LD50 Dermal	Rabbit	11890 mg/kg	-
	LD50 Oral	Rat	12000 mg/kg	-

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)
Polyethylene Glycol nominal Mp 106					
2,2' -oxybisethanol	500	11890	N/A	N/A	N/A
Polyethylene Glycol nominal Mp 194 - 20000					
Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy- Ethane-1,2-diol, ethoxylated	28000	N/A	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Polyethylene Glycol nominal Mp 106					
2,2' -oxybisethanol	Eyes - Mild irritant	Rabbit	-	50 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
Polyethylene Glycol nominal Mp 194 - 20000					
Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy- Ethane-1,2-diol, ethoxylated	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Mild irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-

Sensitiser

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

SECTION 11: Toxicological information

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure	:	Polyethylene Glycol nominal Mp 106	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
		Polyethylene Glycol nominal Mp 194 - 20000	Not available.

Potential acute health effects

Inhalation	:	Polyethylene Glycol nominal Mp 106	No known significant effects or critical hazards.
		Polyethylene Glycol nominal Mp 194 - 20000	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
Ingestion	:	Polyethylene Glycol nominal Mp 106	Harmful if swallowed.
		Polyethylene Glycol nominal Mp 194 - 20000	No known significant effects or critical hazards.
Skin contact	:	Polyethylene Glycol nominal Mp 106	No known significant effects or critical hazards.
		Polyethylene Glycol nominal Mp 194 - 20000	No known significant effects or critical hazards.
Eye contact	:	Polyethylene Glycol nominal Mp 106	No known significant effects or critical hazards.
		Polyethylene Glycol nominal Mp 194 - 20000	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	:	Polyethylene Glycol nominal Mp 106	No specific data.
		Polyethylene Glycol nominal Mp 194 - 20000	Adverse symptoms may include the following: respiratory tract irritation coughing
Ingestion	:	Polyethylene Glycol nominal Mp 106	No specific data.
		Polyethylene Glycol nominal Mp 194 - 20000	No specific data.
Skin contact	:	Polyethylene Glycol nominal Mp 106	No specific data.
		Polyethylene Glycol nominal Mp 194 - 20000	No specific data.
Eye contact	:	Polyethylene Glycol nominal Mp 106	No specific data.
		Polyethylene Glycol nominal Mp 194 - 20000	Adverse symptoms may include the following: irritation redness

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

Potential immediate effects	:	Not available.

SECTION 11: Toxicological information

Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.

General	:	Polyethylene Glycol nominal Mp 106	No known significant effects or critical hazards.
		Polyethylene Glycol nominal Mp 194 - 20000	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
Carcinogenicity	:	Polyethylene Glycol nominal Mp 106	No known significant effects or critical hazards.
		Polyethylene Glycol nominal Mp 194 - 20000	No known significant effects or critical hazards.
Mutagenicity	:	Polyethylene Glycol nominal Mp 106	No known significant effects or critical hazards.
		Polyethylene Glycol nominal Mp 194 - 20000	No known significant effects or critical hazards.
Reproductive toxicity	:	Polyethylene Glycol nominal Mp 106	No known significant effects or critical hazards.
		Polyethylene Glycol nominal Mp 194 - 20000	No known significant effects or critical hazards.
Other information	:	Polyethylene Glycol nominal Mp 106	Adverse symptoms may include the following: central nervous system depression. Repeated or prolonged exposure to the substance can produce kidney damage.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Polyethylene Glycol nominal Mp 106 2,2' -oxybisethanol	Acute LC50 75200000 µg/l Fresh water	Fish - Fathead minnow - *Pimephales promelas*	96 hours
Polyethylene Glycol nominal Mp 194 - 20000 Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy- Ethane-1,2-diol, ethoxylated	Acute EC50 >100 mg/l Fresh water	Daphnia - *Daphnia magna*	48 hours
	Acute LC50 >1000000 µg/l Fresh water	Fish - Atlantic salmon - *Salmo salar* - Parr	96 hours

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Polyethylene Glycol nominal Mp 194 - 20000 Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy- Ethane-1,2-diol, ethoxylated	OECD 301D Ready Biodegradability - Closed Bottle Test	74.85 % - Readily - 28 days	4 mg/l	-

Conclusion/Summary : Not available.

SECTION 12: Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Polyethylene Glycol nominal Mp 194 - 20000 Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy- Ethane-1,2-diol, ethoxylated	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Polyethylene Glycol nominal Mp 106 2,2' -oxybisethanol	-1.98	100	Low
Polyethylene Glycol nominal Mp 194 - 20000 Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy- Ethane-1,2-diol, ethoxylated	-	3.2	Low

12.4 Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
Polyethylene Glycol nominal Mp 106 2,2' -oxybisethanol	No	N/A	No	No	No	N/A	No
Polyethylene Glycol nominal Mp 194 - 20000 Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy- Ethane-1,2-diol, ethoxylated	No	N/A	No	No	No	N/A	No

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : 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.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

SECTION 13: Disposal considerations

Special precautions : 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-
14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-
14.5 Environmental hazards	No.	No.	No.

Additional information

14.6 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.

14.7 Transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

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

UK (GB)/REACH

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Ozone depleting substances

Not listed.

Prior Informed Consent (PIC)

Not listed.

Persistent Organic Pollutants

Not listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

SECTION 15: Regulatory information

Product / Ingredient name	Identifiers	Status
Polyethylene Glycol nominal Mp 106 2,2' -oxybisethanol	EC: 203-872-2 CAS: 111-46-6 Index: 603-140-00-6	3

Label : Polyethylene Glycol nominal Mp 106 — Not applicable.
Polyethylene Glycol nominal Mp 194 - 20000 — Not applicable.

Seveso Directive

This product is not controlled under the Seveso Directive.

EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments might still be required.

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

United States : All components are active or exempted.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification

SECTION 16: Other information

Classification	Justification
Polyethylene Glycol nominal Mp 106 Acute Tox. 4, H302	Regulatory data

Full text of abbreviated H statements

Polyethylene Glycol nominal Mp 106	
H302	Harmful if swallowed.

Full text of classifications

Polyethylene Glycol nominal Mp 106	
Acute Tox. 4	ACUTE TOXICITY - Category 4

Date of issue/ Date of revision : 07/08/2023

Date of previous issue : No previous validation

Version : 1

Note * : ***Polyethylene Glycol nominal Mp 194**
Polyethylene Glycol nominal Mp 400
Polyethylene Glycol nominal Mp 600
Polyethylene Glycol nominal Mp 1000
Polyethylene Glycol nominal Mp 1500
Polyethylene Glycol nominal Mp 4000
Polyethylene Glycol nominal Mp 7000
Polyethylene Glycol nominal Mp 13000
Polyethylene Glycol nominal Mp 20000

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