

Product Name	Polyethylene Glycol 400
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Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identification:

Product Description: Polyethylene Glycol 400

Synonyms: Poly(et; Poly(oxy-1,2-ethanediyl)

CAS-No: 25322-68-3

EC-No.: ---

Molecular Formula: (C₂H₄O)_nH₂O

REACH Registration No: A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration, or the registration is envisaged for a later registration deadline.

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

Recommended Use: For synthesis, not for food, drug, used as pharma excipient

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

- **Company** **Finar Limited**
184-186/P, Chacharwadi Vasna,
Sarkhej-Bavla Highway,
Ta.: Sanand, Dist.: Ahmedabad-382110, Gujarat, India.
Web: www.finarchemicals.com
- **E-Mail Address** safety.finar@actylis.com; info.finar@actylis.com

1.4. Emergency Telephone Number:

- For Emergency contact on: +91 - 2717 - 616 717

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SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture:

This substance is not classified as dangerous according to European Union legislation.

2.2. Label Elements:

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.3. Other Hazards:

None Known

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances: Polyethylene Glycol

3.2. Mixtures:

Component	CAS-No	EC-No.	Weight %
Polyethylene Glycol	25322-68-3	---	100

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures:

- **If inhaled**

Fresh air.

- **If case of skin contact**

Take off immediately all contaminated clothing. Rinse skin with water/ shower.

- **In case of eye contact**

Flush eyes with Plenty of water.

- **If swallowed**

Make victim drink water (two glasses at most). Consult doctor if feeling unwell.

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

We have no description of any toxic symptoms.

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

No information Available

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SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media:

Suitable Extinguishing Media- Use water , alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media- For this substance/mixture no limitations of extinguishing agents are given.

5.2. Special hazards arising from the substance or mixture:

Combustible.

Vapours are heavier than air and may spread along floors

Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapours possible in the event of fire.

5.3. Advice for firefighters:

In the event of fire, wear self-contained breathing apparatus.

5.4 Further Information:

Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures:

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Evacuate the danger area,

Observe emergency procedures, consult an expert.

Advice for emergency responders:

Protective equipment see section 8.

6.2. Environmental precautions:

Do not let product enter drains.

6.3. Methods and material for containment and cleaning up:

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemisorb®). Dispose of properly.

Clean up affected area.

6.4. Reference to other sections:

For disposal see Sections 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

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Advice on safe handling

Observe label precautions.

Hygiene measures

Change contaminated clothing. Wash hands after working with substance.

7.2. Conditions for safe storage, including any incompatibilities:

Storage conditions

Tightly closed.

Recommended storage temperature see product label.

7.3. Specific end use(s):

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Contains no substances with occupational exposure limit values.

8.2. Exposure Controls:

- **Appropriate Engineering Controls:**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7.1.

Personal Protective Equipment:

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

Eye & Face Protection-

Safety goggles.

- **Skin Protection -**

Hand Protection

Full contact

Material : Nitrile rubber

Minimum layer thickness : 0.11 mm

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Break through time : >480 min

Splash contact

Material : Nitrile rubber

Minimum layer thickness : 0.11 mm

Break through time : >480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 741 Dermatril® L (full contact), KCL 741 Dermatril® L (splash contact).

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

This recommendation applies only to the product stated in the safety data sheet(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

- **Respiratory Protection-**

Not required; except in case of aerosol formation.

- **Environmental Exposure Controls-**

Do not let product enter drains.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties:

- **Appearance: - Form:** - Liquid
Color: - Colorless
- **Physical State:** - Liquid
- **Odour:** - Odourless
- **pH:** - 5 to 7 at 100 g/l 20°C Neutral
- **Melting Point:** - Ca. 5°C
- **Critical Temperature:** - No data available
- **Vapor Pressure:** - <0.1 hPa at 20°C
- **Vapor Density:** - 1.13 g/cm³ at 20°C
- **Viscosity Dynamic:** - 105 - 140 mPa.s at 20°C
- **Decomposition Temperature:** - > 220 °C
- **Partition coefficient: n-octanol/water:-** log Pow: ca. -2.3 (25 °C)

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EPI Suite™

Bioaccumulation is not expected.

- **Volatility:** - No data available
- **Bulk Density:** - No data available
- **Odor Threshold:** - No data available
- **Water/Oil Dist. Co eff.:** - No data available
- **Ionicity (in Water):** - No data available
- **Boiling Point/Range:** - >200°C at 1.013 hPa
- **Flash Point:** - 176 °C
- **Specific Gravity / Density:** - No data available
- **Ignition Temperature:** - 360 °C Method: DIN 51794
- **Water Solubility:** - At 20°C Soluble

9.2. Other information:

Molecular Formula: $(C_2H_4O)_nH_2O$

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:

Forms explosive mixtures with air on intense heating.

A range from approx. 15 Kelvin below the flash point is to be rated as critical.

10.2. Chemical stability:

The product is chemically stable under standard ambient conditions (room temperature).

10.3. Possibility of hazardous reactions:

No information Available

10.4. Conditions to avoid:

Strong Heating.

10.5. Incompatible materials:

No information Available

10.6. Hazardous decomposition products:

No information Available

SECTION 11: TOXICOLOGICAL INFORMATION

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11.1 Information on toxicological effects:**Acute Oral toxicity**

LD50 Rat - >10,000 mg/kg

Remarks: (ECHA)

Acute Inhalation toxicity

No information Available

Acute Dermal toxicity

LD50 Rabbit - > 20.000 mg/kg

Remarks: (ECHA)

Skin corrosion/irritation

Rabbit

Result: - No Skin Irritation

Remarks: (ECHA)

Serious eye damage/eye irritation

Rabbit

Result: - No Eye Irritation

Remarks: (ECHA)

Respiratory or skin sensitization

Sensitisation test: Guinea pig

Result: negative

Method: OECD Test Guideline 406

Germ cell mutagenicity

Genotoxicity in vitro

Ames test

Salmonella typhimurium

Result: negative

Carcinogenicity

No information available

Reproductive toxicity

No information available

Specific target organ toxicity - single exposure

No information available

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Specific target organ toxicity - repeated exposure

No information available

Aspiration hazard

No information available

Additional Information:

Hazardous properties cannot be excluded but are unlikely when the product handled appropriately.

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity:

Toxicity to fish	static test LC50 <i>Poecilia reticulata</i> (guppy): > 100 mg/l; 96 h OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	EC50 <i>Daphnia magna</i> (Water flea): > 100 mg/l; 48 h OECD Test Guideline 202
Toxicity to Bacteria	EC50 activated sludge: > 1,000 mg/l (External MSDS) EC10 <i>Pseudomonas putida</i> : 14,730 mg/l (External MSDS)

12.2 Persistence and degradability:

Biodegradability	> 90 %; 28 d OECD Test Guideline 301E
Readily biodegradable	92 % OECD Test Guideline 302B
Readily eliminated from water	Chemical Oxygen Demand (COD) 1,790 mg/g (External MSDS) 1,858 mg/g (External MSDS)

12.3 Bioaccumulate potential:

Partition coefficient: n-octanol/water log Pow: ca. -2.3 (25 °C) EPI Suite™
Bioaccumulation is not expected.

12.4 Mobility in soil:

No information Available

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12.5 Results of PBT and vPvB assessment:

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

12.6 Other adverse effects:

Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

13.1 Waste treatment methods:

Waste material must be disposed of in accordance with the national and local regulations.

Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

SECTION 14: Transport information

	Land transport (ADR/RID)	Air transport (IATA)	Sea transport (IMDG)
14.1 UN number	Not dangerous goods	Not dangerous goods	Not dangerous goods
14.2 Proper shipping name	Not dangerous goods	Not dangerous goods	Not dangerous goods
14.3 Class	Not dangerous goods	Not dangerous goods	Not dangerous goods
14.4 Packing group	Not dangerous goods	Not dangerous goods	Not dangerous goods
14.5 Environmentally hazardous	Not dangerous goods	Not dangerous goods	Not dangerous goods
14.6 Special precautions for user	No information available	No information available	No information available

SECTION 15: Regulatory information

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

National legislation

Storage class 10-13

15.2 Chemical safety assessment:

For this product a chemical safety assessment was not carried out.

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SECTION 16: Other information

Training advice: -

Provide adequate information, instruction and training for operators.

References: Not available

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