

Safety Data Sheet

Polyethylene Glycol 400

Version 1.0

Revision Date: 10/28/2014

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Polyethylene Glycol 400
Product Use Description : Industrial chemical

Manufacturer or supplier's details

Company : Nexeo Solutions LLC
Address : 3 Waterway Square Place Suite 1000
 Woodlands, Tx. 77380
 United States of America

Emergency telephone number:

Health North America: 1-855-NEXEO4U (1-855-639-3648)
 Health International: 1-855-NEXEO4U (1-855-639-3648)
 Transport North America: CHEMTREC 800.424.9300

Additional Information: : Responsible Party: Product Safety Group
 E-Mail: msds@nexeosolutions.com
 SDS Requests: 1-855-429-2661
 SDS Requests Fax: 1-281-500-2370
 Website: www.nexeosolutions.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Specific target organ toxicity - single exposure : Category 3 (Respiratory system)

GHS Label element

Hazard pictograms :



Signal word : Warning

Hazard statements : H335 May cause respiratory irritation.

Precautionary statements : **Prevention:**
 P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
 P271 Use only outdoors or in a well-ventilated area.
Response:
 P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if

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you feel unwell.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Potential Health Effects

Carcinogenicity:

IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Emergency Overview

Appearance	viscous, liquid
Colour	clear, colourless, white
Odour	alcohol-like
Hazard Summary	No information available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Hazardous components

CAS-No.	Chemical Name	Concentration (%)
25322-68-3	Polyethylene glycol	90 - 100

Molecular formula : (C2H4O)nH2O

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SECTION 4. FIRST AID MEASURES

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|------------------------|---|
| General advice | : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended. |
| If inhaled | : Consult a physician after significant exposure.
If unconscious place in recovery position and seek medical advice. |
| In case of eye contact | : Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist. |
| If swallowed | : Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician. |

SECTION 5. FIREFIGHTING MEASURES

- | | |
|---|--|
| Suitable extinguishing media | : In case of fire, use water/water spray/water jet/carbon dioxide/sand/foam/alcohol resistant foam/chemical powder for extinction. |
| Unsuitable extinguishing media | : High volume water jet |
| Hazardous combustion products | : Carbon oxides |
| Specific extinguishing methods | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Further information | : Standard procedure for chemical fires. |
| Special protective equipment for firefighters | : Wear self-contained breathing apparatus for fire-fighting if necessary. |

NFPA Flammable and Combustible Liquids Classification:
Combustible Liquid Class III B

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SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Ensure adequate ventilation.
- Environmental precautions : Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Avoid formation of aerosol.
Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Provide sufficient air exchange and/or exhaust in work rooms.
Dispose of rinse water in accordance with local and national regulations.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
Observe label precautions.
Electrical installations / working materials must comply with the technological safety standards.
- Materials to avoid : Do not store near acids.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

CAS-No.	Components	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
25322-68-3	Polyethylene glycol	TWA	10 mg/m ³	US WEEL

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Personal protective equipment

Respiratory protection	: No personal respiratory protective equipment normally required. In the case of vapour formation use a respirator with an approved filter.
Hand protection Remarks	: The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Eye protection	: Eye wash bottle with pure water Tightly fitting safety goggles
Skin and body protection	: impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	: When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: viscous, liquid
Colour	: clear, colourless, white
Odour	: alcohol-like
Odour Threshold	: No data available
pH	: 4.5 - 7 @ 5 %
Freezing Point (Melting point/freezing point)	: 4 - 20 °C (39 - 68 °F)
Boiling Point (Boiling point/boiling range)	: Decomposition: Decomposes below the boiling point.
Flash point	: 198.9 - 270 °C (390.0 - 518 °F)
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Burning rate	: No data available

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Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: < 0.08 mmHg @ 20 °C (68 °F)
Relative vapour density	: > 5(Air = 1.0)
Relative density	: No data available
Density	: 1.127 - 1.2 g/cm ³ @ 20 °C (68 °F)
Bulk density	: No data available
Solubility(ies)	
Water solubility	: soluble
Solubility in other sol- vents	: No data available
Partition coefficient: n- octanol/water	: No data available
Auto-ignition temperature	: 320 - 400 °C
Thermal decomposition	: No data available
Viscosity	
Viscosity, kinematic	: 43 mm ² /s @ 40 °C (104 °F) 6.8 - 8.0 mm ² /s @ 98.9 °C (210.0 °F)

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No decomposition if stored and applied as directed.
Conditions to avoid	: Heat, flames and sparks.
Incompatible materials	: Strong oxidizing agents Strong acids and strong bases

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Hazardous decomposition products : Aldehydes
Alcohols
ethers
Carbon oxides
carboxylic acids

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Components:

25322-68-3:

Acute oral toxicity : LD50 (rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (rat): > 2.5 mg/l
Exposure time: 6 h
Test atmosphere: dust/mist
Assessment: The component/mixture is low toxic after short term inhalation.

Acute dermal toxicity : LD50 (rabbit): > 5,000 mg/kg

Skin corrosion/irritation

Components:

25322-68-3:

Remarks: No data available

Serious eye damage/eye irritation

Components:

25322-68-3:

Species: rabbit
Result: No eye irritation

Respiratory or skin sensitisation

Components:

25322-68-3:

Species: guinea pig
Method: OECD Test Guideline 406
Result: Does not cause skin sensitisation.

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Germ cell mutagenicity

Components:

25322-68-3:

Genotoxicity in vitro : Test Type: Ames test
Test species: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Result: negative

Germ cell mutagenicity-Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity

Components:

25322-68-3:

Remarks: This information is not available.

Carcinogenicity - Assessment : Animal testing did not show any carcinogenic effects.

Reproductive toxicity

Components:

25322-68-3:

Effects on fertility : Test Type: Three-generation study
Species: rat, male and female
Application Route: oral
Dose: 0, 15, 59, 270, 1690 mg/kg bw
General Toxicity - Parent: NOAEL: 60 mg/kg bw
Result: No reproductive effects.

Effects on foetal development : Species: rat
Application Route: oral
Dose: 1500-5000 mg/kg bw d
Duration of Single Treatment: 9 d
Teratogenicity: NOAEL: 1,500 mg/kg bw

Reproductive toxicity - Assessment : No toxicity to reproduction
Did not show teratogenic effects in animal experiments.

STOT - single exposure

Product: No data available

Components:

25322-68-3:

Exposure routes:	Target Organs:	Assessment:	Remarks:
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Inhalation	Respiratory system	May cause respiratory irritation., The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.	
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STOT - repeated exposure

Product: No data available

Components:

25322-68-3: No data available

Repeated dose toxicity

Components:

25322-68-3:

Species: dog, male and female

NOAEL: 500 mg/kg

Application Route: Oral

Exposure time: 1 yr

Number of exposures: daily

Dose: 0, 500 mg/kg

Aspiration toxicity

Components:

25322-68-3:

No aspiration toxicity classification

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

25322-68-3:

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Toxicity to fish	: LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l Exposure time: 96 h Test Type: static test
Toxicity to daphnia and other aquatic invertebrates	: LC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h
Toxicity to algae	: EC50 (Skeletonema costatum): > 100 mg/l End point: Biomass Exposure time: 72 h Test Type: Growth inhibition

Persistence and degradability

Components:

25322-68-3:

Biodegradability	: Result: Readily biodegradable. Biodegradation: 90 % Exposure time: 28 d Method: OECD Test Guideline 301F
Chemical Oxygen Demand (COD)	: 0.00182 mg/g
Theoretical Oxygen Demand (ThOD)	: 0.00177 mg/g

Bioaccumulative potential

Components:

25322-68-3:

Partition coefficient: n-octanol/water	: Pow: 0.2 (30 °C) pH: 6.44
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Mobility in soil

No data available

Other adverse effects

No data available

Product:

Regulation	40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks	This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A

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+ B).

Additional ecological in-formation : No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with all applicable local, state and federal regulations.
For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact NEXEO's Environmental Services Group at 800-637-7922.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

IATA (International Air Transport Association): Not regulated as a dangerous good

IMDG-Code: Not regulated as a dangerous good

DOT (Department of Transportation): Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

OSHA Hazards : Toxic by inhalation., Moderate respiratory irritant

WHMIS Classification : D2B: Toxic Material Causing Other Toxic Effects

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

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- SARA 311/312 Hazards** : Acute Health Hazard
- SARA 302** : SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
- SARA 313** : SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).
 This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
 The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489):

25322-68-3	Polyethylene glycol	100 %
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Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.
 This product does not contain any Hazardous Chemicals listed under the U.S. Clean-Water Act, Section 311, Table 117.3.
 This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations

Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know

25322-68-3	Polyethylene glycol	90 - 100 %
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New Jersey Right To Know

25322-68-3	Polyethylene glycol	90 - 100 %
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California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

United States TSCA Inventory	:	y (positive listing) (On TSCA Inventory)
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Canadian Domestic Substances List (DSL)	:	y (positive listing) (All components of this product are on the Canadian DSL.)
Australia Inventory of Chemical Substances (AICS)	:	y (positive listing) (On the inventory, or in compliance with the inventory)
New Zealand. Inventory of Chemical Substances	:	y (positive listing) (On the inventory, or in compliance with the inventory)
Japan. ENCS - Existing and New Chemical Substances Inventory	:	y (positive listing) (On the inventory, or in compliance with the inventory)
Japan. ISHL - Inventory of Chemical Substances (METI)	:	y (positive listing) (On the inventory, or in compliance with the inventory)
Korea. Korean Existing Chemicals Inventory (KECI)	:	y (positive listing) (On the inventory, or in compliance with the inventory)
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	:	y (positive listing) (On the inventory, or in compliance with the inventory)
China. Inventory of Existing Chemical Substances in China (IECSC)	:	y (positive listing) (On the inventory, or in compliance with the inventory)

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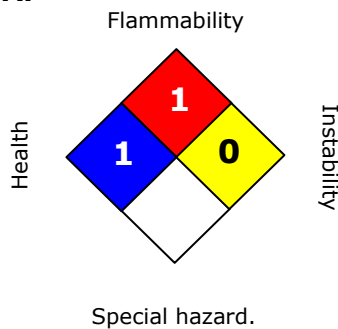
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SECTION 16. OTHER INFORMATION

Further information

NFPA:



HMIS III:

HEALTH	1
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 =Extreme, * = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by NEXEO™ Solutions EHS Product Safety Department (1-855-429-2661) MSDS@nexeosolutions.com.

Material number:

16062191, 16058140, 16058139, 16011181, 20433, 604783, 707787, 152624, 71451, 52712, 86433, 87832, 102213, 86943, 102711, 69454, 69952, 153491, 102815, 54182

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level

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EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50			Lethal Concentration 50%