

## SAFETY DATA SHEET

**Preparation Date:** 03/17/2015

**Revision Date:** 03/17/2015

**Revision Number:** G1

**Product identifier**

**Product code:**

P1792

**Product Name:**

POLYETHYLENE GLYCOL 4500, NF

**Other means of identification**

**Synonyms:**

1,2-Ethenediol homopolymer  
Alcox E 30  
Alcox E 100  
Alcox E 130  
Alcox E 160  
Alcox E 240  
Alcox E 45  
Alcox E 60  
Alcox E 75  
Alcox R 1000  
Alcox R 15  
Alcox R 150  
Alcox R 400  
Alcox SR  
Antarox E 4000  
Aquacide III  
Aquaffin  
Atpreg 300  
BDH 301  
Badimol  
Bradsyn PEG  
Breox 2000  
Breox 20M  
Breox 4000  
Breox 550  
Breox PEG 300  
CAFO 154  
Carbowax  
Carbowax 100  
Carbowax 1000  
Carbowax 1350  
Carbowax 14000  
Carbowax 1500  
Carbowax 20  
Carbowax 200  
Carbowax 20000  
Carbowax 25000  
Carbowax 300  
Carbowax 3350  
Carbowax 400  
Carbowax 4000  
Carbowax 4500  
Carbowax 4600  
Carbowax 600  
Carbowax Sentry  
DD 3002  
Deactivator H  
Emkapol 4200  
Ethoxylated 1,2-ethenediol  
Ethylene glycol homopolymer  
Ethylene glycol polymer  
Gafanol E 200  
Glycols, polyethylene  
HM 500  
Lutrol  
Macrogol  
Merpel OJ  
Miralax  
Modopeg

Nosilen  
Nycoline  
Oxide Wax AN  
Oxyethylene polymer  
PEG  
PEG 3350  
PEG 400  
PEG 4000  
PEG 6000DS  
Pluracol E  
Pluracol E 400, E 600, E 1450  
Pluriol E 200  
Poly(oxy-1,2-ethanediyl, alpha-hydro-omega-hydroxy-  
Poly-G  
Poly-G600  
Polyoxyethylene ether  
alpha-Hydro-omega-hydroxypoly(oxy-1,2-ethanediyl)  
alpha-Hydro-omega-hydroxypoly(oxyethylene)

**CAS #:** 25322-68-3  
**RTECS #** TQ4070000  
**CI#:** Not available

**Recommended use of the chemical and restrictions on use**

**Recommended use:** No information available.  
**Uses advised against** No information available

**Supplier:** Spectrum Chemicals and Laboratory Products, Inc.  
14422 South San Pedro St.  
Gardena, CA 90248  
(310) 516-8000

**Order Online At:** <https://www.spectrumchemical.com>

**Emergency telephone number** Chemtrec 1-800-424-9300  
**Contact Person:** Martin LaBenz (West Coast)  
**Contact Person:** Ibad Tirmiz (East Coast)

**2. HAZARDS IDENTIFICATION**

**Classification**

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

**Label elements**

Not classified

**Hazards not otherwise classified (HNOC)**

Not Applicable

**Other hazards**

Not available

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**Product name:** POLYETHYLENE  
GLYCOL 4500, NF

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %	Trade Secret
Polyethylene Glycol 4500 25322-68-3	25322-68-3	100	*

### 4. FIRST AID MEASURES

#### First aid measures

#### **General Advice:**

Poison information centers in each State capital city can provide additional assistance for scheduled poisons (13 1126).

#### **Skin Contact:**

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention. If skin irritation persists, call a physician.

#### **Eye Contact:**

Flush eye with water for 15 minutes. Get medical attention.

#### **Inhalation:**

Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

#### **Ingestion:**

Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

#### **Most important symptoms and effects, both acute and delayed**

#### **Symptoms**

Mild eye irritation. Mild skin irritation. Irritating to respiratory system.

#### **Indication of any immediate medical attention and special treatment needed**

#### **Notes to Physician:**

Treat symptomatically

#### **Protection of first-aiders**

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

### 5. FIRE-FIGHTING MEASURES

#### **Extinguishing Media**

#### **Suitable Extinguishing Media:**

Carbon dioxide (CO<sub>2</sub>). Dry chemical. Alcohol-resistant foam. Water spray.

#### **Unsuitable Extinguishing Media:**

Do not use a solid (straight) water stream as it may scatter and spread fire.

#### **Specific hazards arising from the chemical**

#### **Hazardous Combustion Products:**

Carbon monoxide; Carbon dioxide

#### **Specific hazards:**

May be combustible at high temperatures  
May be ignited by heat, sparks or flames  
Most vapors are heavier than air. They will spread along the ground and collect in low or confined areas (sewers, basements, tanks)  
Fire may produce irritating, corrosive and/or toxic gases

## **Special Protective Actions for Firefighters**

<b>Specific Methods:</b>	Water mist may be used to cool closed containers. For larger fires, use water spray or fog. Cool containers with flooding quantities of water until well after fire is out.
<b>Special Protective Equipment for Firefighters:</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

## **6. ACCIDENTAL RELEASE MEASURES**

### **Personal precautions, protective equipment and emergency procedures**

**Personal Precautions:** Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition. Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use spark-proof tools and explosion-proof equipment.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas.

### **Methods and material for containment and cleaning up**

**Methods for containment** Absorb spill with inert material (e.g. vermiculite, dry sand or earth), then place in a suitable chemical waste container.

**Methods for cleaning up** Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Use only non-sparking tools. Clean contaminated surface thoroughly.

## **7. HANDLING AND STORAGE**

### **Precautions for safe handling**

#### **Technical Measures/Precautions:**

Provide sufficient air exchange and/or exhaust in work rooms. Remove all sources of ignition. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from incompatible materials.

#### **Safe Handling Advice:**

Wear personal protective equipment. Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not breathe vapors or spray mist. Do not ingest. When using do not smoke. Handle in accordance with good industrial hygiene and safety practice.

### **Conditions for safe storage, including any incompatibilities**

#### **Technical Measures/Storage Conditions:**

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Keep away from heat and sources of ignition. Store in a segregated and approved area. Store away from incompatible materials.

#### **Incompatible Materials:**

Oxidizing agents. Acids.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **Control parameters**

### **National occupational exposure limits**

### United States

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
Polyethylene Glycol 4500 - 25322-68-3	None	None	None	10 mg/m <sup>3</sup> TWA

### Canada

Components	Alberta	British Columbia	Ontario	Quebec
Polyethylene Glycol 4500 - 25322-68-3	None	None	None	None

### Australia and Mexico

Components	Australia	Mexico
Polyethylene Glycol 4500 25322-68-3	None	None

### Appropriate engineering controls

#### Engineering measures to reduce exposure:

Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

### Individual protection measures, such as personal protective equipment

#### Personal Protective Equipment

- Eye protection:** Goggles. Safety glasses with side-shields.
- Skin and body protection:** Chemical resistant apron. Long sleeved clothing. Gloves.
- Respiratory protection:** Effective dust mask. Be sure to use an approved/certified respirator or equivalent..
- Hygiene measures:** Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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<b>Physical state:</b> Solid.	<b>Appearance:</b> No information available	<b>Color:</b> No information available
<b>Odor:</b> No information available	<b>Taste</b> No information available	<b>Molecular/Formula weight:</b> 4050-4950 g/mol
<b>Formula:</b> H(OCH <sub>2</sub> CH <sub>2</sub> ) <sub>n</sub> OH	<b>Flash point (°C):</b> 176°C	<b>Flashpoint (°C/°F):</b> 176°C/ 348.8°F
<b>Flash Point Tested according to:</b> Closed cup	<b>Lower Explosion Limit (%):</b> No information available	<b>Upper Explosion Limit (%):</b> No information available
<b>Autoignition Temperature (°C/°F):</b> 395°C/ 743°F	<b>pH:</b> 6 [Acidic]	<b>Melting point/range(°C/°F):</b> 63°C/ 145.4°F
<b>Boiling point/range(°C/°F):</b> No information available	<b>Decomposition temperature(°C/°F):</b> No information available	<b>Bulk density:</b> No information available
<b>Specific gravity:</b> 1.054	<b>Density (g/cm<sup>3</sup>):</b> No information available	<b>Vapor pressure @ 20°C (kPa):</b> No information available
<b>Evaporation rate:</b> No information available	<b>Vapor density:</b> No information available	<b>VOC content (g/L):</b> No information available
<b>Odor threshold (ppm):</b> No information available	<b>Partition coefficient (n-octanol/water):</b> No information available	<b>Viscosity:</b> No information available
<b>Miscibility:</b> No information available	<b>Solubility:</b> Soluble in cold water Soluble in Methanol Soluble in diethyl ether	

## 10. STABILITY AND REACTIVITY

### Reactivity

Reactive with oxidizing agents  
Reactive with acids

### Chemical stability

**Stability:** Stable under recommended storage conditions

**Possibility of Hazardous Reactions:** Hazardous polymerization does not occur

**Conditions to avoid:** Heat. Ignition sources. Incompatible materials.

**Incompatible Materials:** Oxidizing agents. Acids.

**Hazardous decomposition products:** Carbon monoxide. Carbon dioxide.

### Other Information

**Corrosivity:** No information available

**Special Remarks on Corrosivity:** No information available

## 11. TOXICOLOGICAL INFORMATION

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Principal Routes of Exposure:

None.

#### Acute Toxicity

#### Component Information

*Polyethylene Glycol 4500 - 25322-68-3*

**LD50/oral/rat** = = 22 g/kg Oral LD50 Rat

**LD50/oral/mouse** = No information available

**LD50/dermal/rat** = No information available

**LD50/dermal/rabbit** = >20000 mg/kg

**LC50/inhalation/rat** = No information available

**LC50/inhalation/mouse** = No information available

**Other LD50 or LC50 information** = No information available

#### Product Information

**LD50/oral/rat** =

**VALUE- Acute Tox Oral** = 50000mg/kg

**LD50/oral/mouse** =

**Value - Acute Tox Oral** = No information available

**LD50/dermal/rabbit**

**VALUE-Acute Tox Dermal** = 20000mg/kg

**LD50/dermal/rat**

**VALUE -Acute Tox Dermal** = No information available

**LC50/inhalation/rat**

**VALUE-Vapor** = No information available

**VALUE-Gas** = No information available

**VALUE-Dust/Mist** = No information available

**LC50/Inhalation/mouse**

**VALUE-Vapor** = No information available

**VALUE - Gas** = No information available

**VALUE - Dust/Mist** = No information available

#### Symptoms

**Skin Contact:** May cause skin irritation.

**Eye Contact:** May cause eye irritation.

**Inhalation** May cause respiratory irritation.  
**Ingestion** Harmful if swallowed.

**Aspiration hazard** No information available

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

**Chronic Toxicity** No information available

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GLYCOL 4500, NF

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**Sensitization:** No information available

**Mutagenic Effects:** No information available

**Carcinogenic effects:** Not considered carcinogenic

Components	ACGIH - Carcinogens	IARC	NTP	OSHA HCS - Carcinogens	Australia - Prohibited Carcinogenic Substances	Australia - Notifiable Carcinogenic Substances
Polyethylene Glycol 4500	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

**Reproductive toxicity** No data is available

**Reproductive Effects:** No information available

**Developmental Effects:** No information available

**Teratogenic Effects:** No information available

**Specific Target Organ Toxicity**

**STOT - single exposure** No information available

**STOT - repeated exposure** No information available

**Target Organs:** No information available

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Ecotoxicity effects:** No data available.

**Persistence and degradability:** No information available

**Bioaccumulative potential:** No information available

**Mobility:** No information available

**13. DISPOSAL CONSIDERATIONS**

**Disposal Methods**

**Waste from residues / unused products:**

Waste must be disposed of in accordance with Federal, State and Local regulation.

**Contaminated packaging:**

Empty containers should be taken for local recycling, recovery or waste disposal

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Polyethylene Glycol 4500	None	None	None	None

## 14. TRANSPORT INFORMATION

### DOT

<b>UN-No:</b>	Not Regulated
<b>Proper Shipping Name:</b>	No information available
<b>Hazard Class:</b>	No information available
<b>Subsidiary Risk:</b>	No information available
<b>Packing Group:</b>	None
<b>ERG No:</b>	No information available
<b>Marine Pollutant</b>	No data available
<b>DOT RQ (lbs):</b>	No information available

### TDG (Canada)

<b>UN-No:</b>	Not Regulated
<b>Proper Shipping Name:</b>	No information available
<b>Hazard Class:</b>	No information available
<b>Subsidiary Risk:</b>	No information available
<b>Packing Group:</b>	No information available
<b>Description:</b>	No information available

### ADR

<b>UN-No:</b>	Not Regulated
<b>Proper Shipping Name:</b>	No information available
<b>Hazard Class:</b>	No information available
<b>Packing Group:</b>	No information available
<b>Subsidiary Risk:</b>	No information available
<b>Classification Code:</b>	No information available
<b>Description:</b>	No information available
<b>CEFIC Tremcard No:</b>	No information available

### IMO / IMDG

<b>UN-No:</b>	Not Regulated
<b>Proper Shipping Name:</b>	No information available
<b>Hazard Class:</b>	No information available
<b>Subsidiary Risk:</b>	No information available
<b>Packing Group:</b>	No information available
<b>Description:</b>	No information available
<b>IMDG Page:</b>	No information available
<b>Marine Pollutant</b>	No information available
<b>MFAG:</b>	No information available
<b>Maximum Quantity:</b>	No information available

### RID

<b>UN-No:</b>	Not Regulated
<b>Proper Shipping Name:</b>	No information available
<b>Hazard Class:</b>	No information available
<b>Subsidiary Risk:</b>	No information available
<b>Packing Group:</b>	No information available
<b>Classification Code:</b>	No information available
<b>Description:</b>	No information available

### ICAO

<b>UN-No:</b>	Not Regulated
<b>Proper Shipping Name:</b>	No information available
<b>Hazard Class:</b>	No information available
<b>Subsidiary Risk:</b>	No information available

**14. TRANSPORT INFORMATION**

**Packing Group:** No information available  
**Description:** No information available

**IATA**

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available  
**Description:** No information available

**15. REGULATORY INFORMATION****International Inventories**

Components	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
<i>Polyethylene Glycol 4500</i>	Present XU	Present KE-20228	Present	Present (8)-429 (7)-129 (2)-441	Not present	Present	Not present

**U.S. Regulations**

*Polyethylene Glycol 4500*

**Minnesota - Hazardous Substance List:** Present

**FDA - Direct Food Additives** 21 CFR 172.210 21 CFR 172.820 21 CFR 173.310 21 CFR 173.340

**FDA - 21 CFR - Total Food Additives** 172.210 172.820 173.310 173.340 175.105 175.300 176.180 178.3750 73.1

**California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.****Chemicals Known to the State of California to Cause Cancer:**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

**Chemicals Known to the State of California to Cause Reproductive Toxicity:**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
<i>Polyethylene Glycol 4500</i>	Not Listed	Not Listed	Not Listed	Not Listed

**CERCLA/SARA**

Components	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting <i>de minimis</i>
<i>Polyethylene Glycol 4500</i>	None	None	None	None	None

**U.S. TSCA**

Components	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
<i>Polyethylene Glycol 4500</i>	Not Applicable	Not Applicable

**Canada**

**WHMIS hazard class:**  
Non-controlled

**Canada Controlled Products Regulation:**

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

**Inventory**

Components	Canada (DSL)	Canada (NDSL)
Polyethylene Glycol 4500	Present	Not Listed

Components	CEPA Schedule I - Toxic Substances	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Polyethylene Glycol 4500	Not listed	Not listed

**EU Classification****R-phrase(s)**

not determined (not applicable)

**S -phrase(s)**

none

Components	Classification	Concentration Limits:	Safety Phrases
Polyethylene Glycol 4500		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

**Indication of danger:**

None.

**16. OTHER INFORMATION**

## 16. OTHER INFORMATION

**Preparation Date:** 03/17/2015  
**Revision Date:** 03/17/2015  
**Prepared by:** Sonia Owen

**Disclaimer:**

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

**End of Safety Data Sheet**