



# MATERIAL SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Date of issue: 01/22/2013

Version 1.0

## SECTION 1. Identification

### Product identifier

Product number 807488  
Product name Polyethylene glycol 1000 for synthesis

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

Identified uses Chemical for synthesis

### Details of the supplier of the safety data sheet

Company EMD Millipore Corporation | 290 Concord Road, Billerica, MA 01821, United States of America | SDS Phone Support: +1-978-715-1335 | General Inquiries: +1-978-715-4321 | Monday to Friday, 9:00 AM to 4:00 PM Eastern Time (GMT-5)  
e-mail: mm\_sds@merckgroup.com

Emergency telephone 800-424-9300 CHEMTREC (USA)  
+1-703-527-3887 CHEMTREC (International)  
24 Hours/day; 7 Days/week

## SECTION 2. Hazards identification

### GHS-Labeling

Not a dangerous substance according to GHS.

### OSHA Hazards

While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

### Other hazards

None known.

## SECTION 3. Composition/information on ingredients

Formula  $\text{HO}(\text{C}_2\text{H}_4\text{O})_n\text{H}$   $\text{HO}(\text{C}_2\text{H}_4\text{O})_n\text{H}$  (Hill)  
CAS-No. 25322-68-3

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Remarks

No hazardous ingredients according to the OSHA Hazard Communication Standard 29 CFR 1910.1200.

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## SECTION 4. First aid measures

### Description of first-aid measures

#### *Inhalation*

After inhalation: fresh air.

#### *Skin contact*

After skin contact: wash off with plenty of water. Remove contaminated clothing.

#### *Eye contact*

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist.

#### *Ingestion*

If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible.

Never give anything by mouth to an unconscious person.

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

irritant effects

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

No information available.

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## SECTION 5. Fire-fighting measures

### Extinguishing media

#### *Suitable extinguishing media*

Water, Carbon dioxide (CO<sub>2</sub>), Foam, Dry powder

#### *Unsuitable extinguishing media*

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

### Special hazards arising from the substance or mixture

Combustible material, Development of hazardous combustion gases or vapors possible in the event of fire.

### Advice for firefighters

#### *Special protective equipment for fire-fighters*

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

#### *Further information*

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

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## SECTION 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

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Advice for non-emergency personnel: Avoid generation of dusts; do not inhale dusts. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

## Environmental precautions

Do not empty into drains.

## Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills.

Observe possible material restrictions (see sections 7 and 10).

Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

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## SECTION 7. Handling and storage

### Precautions for safe handling

Observe label precautions.

### Conditions for safe storage, including any incompatibilities

Tightly closed. Dry.

Store at +15°C to +25°C (+59°F to +77°F).

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## SECTION 8. Exposure controls/personal protection

### Exposure limit(s)

Contains no substances with occupational exposure limit values.

### Engineering measures

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

### Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

#### *Hygiene measures*

Change contaminated clothing. Application of skin- protective barrier cream recommended.

Wash hands after working with substance.

#### *Eye/face protection*

Safety glasses

#### *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.

#### *Respiratory protection*

required when dusts are generated.

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

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## SECTION 9. Physical and chemical properties

|  |  |
|--|--|
| Physical state                         | solid                                      |
| Color                                  | off-white                                  |
| Odor                                   | odorless                                   |
| Odor Threshold                         | No information available.                  |
| pH                                     | 4 - 7<br>at 100 g/l<br>68 °F ( 20 °C)      |
| Melting point                          | 33 - 40 °C                                 |
| Boiling point                          | No information available.                  |
| Flash point                            | 500 °F ( 260 °C)                           |
| Evaporation rate                       | No information available.                  |
| Flammability (solid, gas)              | No information available.                  |
| Lower explosion limit                  | No information available.                  |
| Upper explosion limit                  | No information available.                  |
| Vapor pressure                         | < 0.1 hPa<br>at 68 °F ( 20 °C)             |
| Relative vapor density                 | No information available.                  |
| Relative density                       | 1.2 g/cm <sup>3</sup><br>at 68 °F ( 20 °C) |
| Water solubility                       | 750 g/l<br>at 68 °F ( 20 °C)               |
| Partition coefficient: n-octanol/water | No information available.                  |
| Autoignition temperature               | No information available.                  |
| Decomposition temperature              | > 428 °F ( > 220 °C)                       |
| Viscosity, dynamic                     | No information available.                  |
| Explosive properties                   | No information available.                  |
| Ignition temperature                   | 788 °F ( 420 °C)                           |

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## SECTION 10. Stability and reactivity

### Reactivity

See below

### Chemical stability

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

### Possibility of hazardous reactions

no information available

### Conditions to avoid

Heating (decomposition).

### Incompatible materials

no information available

### Hazardous decomposition products

no information available

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## SECTION 11. Toxicological information

### Information on toxicological effects

#### *Likely route of exposure*

Eye contact, Skin contact, Ingestion

#### *Acute oral toxicity*

LD50 rat: 28,000 mg/kg (RTECS)

LD50 rat: > 15,000 mg/kg

#### *Acute dermal toxicity*

LD50 rabbit: > 20,000 mg/kg  
(RTECS)

#### *Skin irritation*

rabbit

Result: No irritation

OECD Test Guideline 404

#### *Eye irritation*

rabbit

Result: No eye irritation

OECD Test Guideline 405

rabbit

Result: slight irritation

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### *Sensitization*

Sensitization test: guinea pig  
Result: negative  
Method: OECD Test Guideline 406

### *Genotoxicity in vitro*

Ames test  
Result: negative  
Method: OECD Test Guideline 471

### *Specific target organ systemic toxicity - single exposure*

The substance or mixture is not classified as specific target organ toxicant, single exposure.

### *Specific target organ systemic toxicity - repeated exposure*

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

### *Aspiration hazard*

Regarding the available data the classification criteria are not fulfilled.

## **Carcinogenicity**

|       |  |
|-------|--|
| IARC  | No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. |
| OSHA  | No ingredient 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 ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.                 |
| ACGIH | No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.            |

## **Further information**

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

Handle in accordance with good industrial hygiene and safety practice.

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## **SECTION 12. Ecological information**

### **Ecotoxicity**

#### *Toxicity to fish*

LC50 Cyprinus carpio (Carp): > 100 mg/l; 96 h  
OECD Test Guideline 203

LC50 fish: > 10 g/l

#### *Toxicity to daphnia and other aquatic invertebrates*

EC50 Daphnia magna (Water flea): > 100 mg/l; 48 h  
OECD Test Guideline 202

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### *Toxicity to bacteria*

EC10 *Pseudomonas putida*: 14,730 mg/l (External MSDS)

EC0 Bacteria: > 12 g/l

### **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)

### **Bioaccumulative potential**

No information available.

### **Mobility in soil**

No information available.

### **Other adverse effects**

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## **SECTION 13. Disposal considerations**

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

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## **SECTION 14. Transport information**

### **Land transport (DOT)**

Not classified as dangerous in the meaning of transport regulations.

### **Air transport (IATA)**

Not classified as dangerous in the meaning of transport regulations.

### **Sea transport (IMDG)**

Not classified as dangerous in the meaning of transport regulations.

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## **SECTION 15. Regulatory information**

### **United States of America**

#### **OSHA Hazards**

No OSHA Hazards

This information is based on 29 CFR 1910.1200 criteria prior to adoption of the GHS, and may deviate from the GHS information on the label and in section 2.

#### **SARA 311/312 Hazards**

No SARA Hazards

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## 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.

## SARA 302

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

## 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. CleanWater Act, Section 311, Table 117.3.

## US State Regulations

### Massachusetts Right To Know

Remarks

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

### Pennsylvania Right To Know

*Ingredients*

polymer of ethylene glycol

### New Jersey Right To Know

*Ingredients*

polymer of ethylene glycol

### California Prop 65 Components

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

## Notification status

TSCA: On TSCA Inventory

DSL: All components of this product are on the Canadian DSL.

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## SECTION 16. Other information

### Training advice

Provide adequate information, instruction and training for operators.

### Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at [www.wikipedia.org](http://www.wikipedia.org).

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The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

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