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A Geno Technology, Inc. (USA) brand name

Safety Data Sheet

Cat. # RC-077

PEG 8000

Size: 500g



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PEG 8000

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 12/08/2011

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Version: 7.1

SECTION 1: Identification

1.1. Identification

Product form : Substance
Substance name : PEG 8000
Chemical name : PEG 8000
CAS-No. : 25322-68-3
Product code : 046P
Formula : $\text{HO}(\text{C}_2\text{H}_4\text{O})_n\text{H}$
Synonyms : alpha-hydro-omega-hydroxypoly(oxy-1,2-ethanediyl), E1000 / carbowax 1000 / carbowax PEG 1000 / carbowax polyethyleneglycol 1000 / E1000 (=polyethyleneglycol 1000) / ethylene oxide, homopolymer, E1000 / macrogol 1000 / PEG 1000 / pluracol E1000 / poly(ethyleneglycol), average molecular weight=1000 / poly(ethyleneglycol)1000 / polyethyleneglycol E1000 / polyethyleneglycol emkapol 1000 / poly-G 1000 / polyglycol 1000 / polyglycol E1000 / polyoxyethylene 1000
BIG No : 19496

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Solvent
Chemical intermediate

1.3. Supplier

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1.4. Emergency telephone number

Emergency number : Chemtrec **1-800-424-9300** (USA/Canada), **+1-703-527-3887** (Intl)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labeling

No labeling applicable

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Substance type : Mono-constituent

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Name	Common Name (Synonyms)	Product identifier	%	GHS US classification
PEG 8000	alpha-hydro-omega-hydroxypoly(oxy-1,2-ethanediyl),E1000 / carbowax 1000 / carbowax PEG 1000 / carbowax polyethyleneglycol 1000 / E1000(=polyethyleneglycol 1000) / ethylene oxide,homopolymer,E1000 / macrogol 1000 / PEG 1000 / pluracol E1000 / poly(ethyleneglycol),average molecular weight=1000 / poly(ethyleneglycol)1000 / polyethyleneglycol E1000 / polyethyleneglycol emkapol 1000 / poly-G 1000 / polyglycol 1000 / polyglycol E1000 / polyoxyethylene 1000	(CAS-No.) 25322-68-3		Not classified

Full text of hazard classes and H-statements : see section 16

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	: Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.
First-aid measures after inhalation	: Remove the victim into fresh air.
First-aid measures after skin contact	: Wash immediately with lots of water (15 minutes)/shower. Soap may be used. Do not apply (chemical) neutralizing agents.
First-aid measures after eye contact	: Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Take victim to an ophthalmologist. Do not apply neutralizing agents.
First-aid measures after ingestion	: Rinse mouth with water. Ingestion of large quantities: immediately to hospital. Call Poison Information Centre (www.big.be/antigif.htm).

4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and symptoms	: Practically non-toxic if swallowed (LD50 oral, rat > 2000 mg/kg). Practically non-toxic in contact with skin (LD50 skin > 2000 mg/kg). Irritant to the eyes.
Symptoms/effects	: Irritation of the eye tissue.
Symptoms/effects after inhalation	: Slight irritation.
Symptoms/effects after skin contact	: Slight irritation.
Symptoms/effects after eye contact	: Slight irritation.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Quick-acting ABC powder extinguisher. Class A foam extinguisher. Water (quick-acting extinguisher, reel). Water. Class A foam.
Unsuitable extinguishing media	: Quick-acting BC powder extinguisher. Quick-acting CO2 extinguisher.

5.2. Specific hazards arising from the chemical

Fire hazard	: DIRECT FIRE HAZARD: Not easily combustible. In finely divided state: increased fire hazard. INDIRECT FIRE HAZARD: Temperature above flashpoint: higher fire/explosion hazard.
Explosion hazard	: DIRECT EXPLOSION HAZARD: Fine dust is explosive with air. INDIRECT EXPLOSION HAZARD: Dust cloud can be ignited by a spark.

5.3. Special protective equipment and precautions for fire-fighters

Precautionary measures fire	: Exposure to fire/heat: keep upwind. Exposure to fire/heat: have neighbourhood close doors and windows.
Protection during firefighting	: Heat/fire exposure: compressed air/oxygen apparatus.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Protective equipment : Gloves. Safety glasses. Protective clothing.
- Emergency procedures : Mark the danger area. Prevent dust cloud formation, e.g. by wetting. No naked flames. Wash contaminated clothes.
- Measures in case of dust release : In case of dust production: keep upwind. Dust production: have neighbourhood close doors and windows. In case of dust production: stop engines and no smoking. In case of dust production: no naked flames or sparks. Dust: spark-/explosionproof appliances/lighting equipment.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- For containment : Contain released product, pump into suitable containers. Knock down/dilute dust cloud with water spray. Powdered form: no compressed air for pumping over spills.
- Methods for cleaning up : Scoop solid spill into closing containers. Powdered: do not use compressed air for pumping over spills. Wash down leftovers with plenty of water.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Avoid raising dust. Keep away from naked flames/heat. In finely divided state: use spark-/explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Powdered form: no compressed air for pumping over. Keep container tightly closed.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in a well-ventilated place. Keep cool.
- Heat-ignition : KEEP SUBSTANCE AWAY FROM: heat sources.
- Information on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents. (strong) acids. (strong) bases.
- Storage area : Store in a dry area. Meet the legal requirements.
- Special rules on packaging : SPECIAL REQUIREMENTS: closing. watertight. dry. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

PEG 8000 (25322-68-3)

No additional information available

8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station.
- Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Gloves

Eye protection:

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Safety glasses. In case of dust production: protective goggles

Skin and body protection:

Protective clothing

Respiratory protection:

Dust production: dust mask with filter type P1

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Solid.
Color	: White
Odor	: Almost odourless
Odor threshold	: No data available
pH	: 4 - 7 (5 %)
Melting point	: 36 °C
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: 265 °C
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapor pressure	: < 0.013 hPa (20 °C)
Relative vapor density at 20 °C	: Not applicable
Relative density	: 1.1
Specific gravity / density	: 1083 kg/m ³
Molecular mass	: 8000 g/mol
Solubility	: Soluble in water. Soluble in acetone. Soluble in methanol. Soluble in tetrachloromethane. Soluble in aromatic hydrocarbons. Water: 70 g/100ml Acetone: > 100 g/100ml
Log Pow	: < 3
Auto-ignition temperature	: > 400 °C
Decomposition temperature	: No data available
Viscosity, kinematic	: 692.521 mm ² /s
Viscosity, dynamic	: 0.75 Pa·s (99 °C)
Explosion limits	: Not applicable
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

Other properties : Hygroscopic. Acid reaction.

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Unstable on exposure to moisture.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

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10.6. Hazardous decomposition products

Hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

PEG 8000 (25322-68-3)	
LD50 oral rat	32000 mg/kg (Rat, Oral)
LD50 dermal rabbit	> 20000 mg/kg (Rabbit, Dermal)
ATE US (oral)	32000 mg/kg body weight

Skin corrosion/irritation : Not classified
pH: 4 - 7 (5 %)

Serious eye damage/irritation : Not classified
pH: 4 - 7 (5 %)

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity – single exposure : Not classified

Specific target organ toxicity – repeated exposure : Not classified

Aspiration hazard : Not classified

Viscosity, kinematic : 692.521 mm²/s

Potential Adverse human health effects and symptoms : Practically non-toxic if swallowed (LD50 oral, rat > 2000 mg/kg). Practically non-toxic in contact with skin (LD50 skin > 2000 mg/kg). Irritant to the eyes.

Symptoms/effects : Irritation of the eye tissue.

Symptoms/effects after inhalation : Slight irritation.

Symptoms/effects after skin contact : Slight irritation.

Symptoms/effects after eye contact : Slight irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

Ecology - air : Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).

Ecology - water : Slightly harmful to fishes. Mild water pollutant (surface water).

12.2. Persistence and degradability

PEG 8000 (25322-68-3)	
Persistence and degradability	Non degradable in the soil.
Chemical oxygen demand (COD)	1.587 g O ₂ /g substance

12.3. Bioaccumulative potential

PEG 8000 (25322-68-3)	
Log Pow	< 3
Bioaccumulative potential	No bioaccumulation data available.

12.4. Mobility in soil

No additional information available

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12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Waste treatment methods.
Product/Packaging disposal recommendations : Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber with energy recovery.
Additional information : Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Other information : No supplementary information available.

Transportation of Dangerous Goods

Transport by sea

Not regulated

Air transport

Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

PEG 8000 (25322-68-3)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

PEG 8000 (25322-68-3)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

EU-Regulations

National regulations

No additional information available

15.3. US State regulations

SECTION 16: Other information

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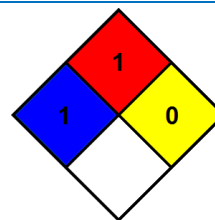
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NFPA health hazard	: 1 - Materials that, under emergency conditions, can cause significant irritation.
NFPA fire hazard	: 1 - Materials that must be preheated before ignition can occur.
NFPA reactivity	: 0 - Material that in themselves are normally stable, even under fire conditions.



SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.