Pentylene Glycol BIO

Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / March 26, 2012 / Rules and Regulation

Revision Date: 12-Mar-2025
Supersedes: 13-Sep-2024

1 PRODUCT & COMPANY IDENTIFICATION

Product Name: Pentylene Glycol BIO
Synonyms: 1,2-Pentanediol, Pentane-1,2-diol
INCI Name: Pentylene Glycol
CAS Number: 5343-92-0
Formula: C5-H12-O2
Product Form: Liquid
Product Use: Cosmetic use

Distributor: MakingCosmetics Inc.
Address: 10800 231st Way NE
Redmond, WA 98053 (USA)
Phone / Fax: 425-292-9502 / 425-292-9601
Web: **www.makingcosmetics.com**

Emergency Telephone Number: 1-800-424-9300 (Chemtrec)

2 HAZARDS IDENTIFICATION

GHS Classification: Serious eye damage: Category 1.
GHS Labeling: Not a dangerous substance according to GHS.
GHS Signal Word: **DANGER**
GHS Hazard Pictograms:

GHS Hazard Statements: H318: Causes serious eye damage.
GHS Precautionary Statements: (Prevention) P280 Wear eye protection/ face protection.
(Response) P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
Potential Health Hazards: Eyes: Causes serious eye damage.
Inhalation: May be an irritant.
Skin: May be an irritant.
Ingestion: May cause nausea, vomiting, or diarrhea.

NFPA Ratings (704):

Health	N/A	N/A
Flammability	N/A	N/A
Reactivity	N/A	N/A
Specific Hazard	N/A	N/A

3 COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Weight %	Molecular Weight
Pentylene Glycol	5343-92-0	100%	Not Available

4 FIRST AID MEASURES

Eyes: Small amounts splashed into eyes can cause irreversible tissue damage and blindness. In the case of contact with eyes, rinse immediately with plenty of water and seek medical attention. Continue rinsing eyes during transport to hospital. Remove contact lenses. Keep eye wide open while rinsing.
Inhalation: If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.
Skin: If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.
Ingestion: Do Not Induce Vomiting. Never give anything by mouth to an unconscious person. Keep respiratory tract clear. Take victim immediately to hospital.
Physician Notes: If potential for exposure exists refer to Section 8 for specific personal protective equipment. Treat symptomatically.

5 FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:	May be combustible at high temperature. Use appropriate media (water spray, alcohol-resistant foam, dry chemical, or carbon dioxide) for adjacent fire. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Do not use high volume water jet.
Special protective equipment & precautions for firefighters:	Wear self-contained breathing apparatus and full protective clothing, including eye protection and boots. Collect contaminated fire extinguishing water separately. Do not allow run-off from firefighting to enter drains or water courses. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Do not use a solid water stream as it may scatter and spread fire.
Flash Points:	> 212°F/100°C.
Specific hazards arising from the chemical:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. See also Stability and reactivity section.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment & emergency procedures:	Ensure adequate ventilation. Do not try to clean up the leak without proper protective equipment. See section 8 for recommendations on the use of personal protective equipment.
Environmental precautions:	Avoid liquid release into sewers/public water/environment. Prevent further leakage or spillage if safe to do so. Notify environmental authorities in case of leak.
Methods and material 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. Dispose of absorbed material in accordance with the regulations.

7 HANDLING & STORAGE

Precautions for safe handling:	Do not breathe vapors/dust. Avoid contact with skin and eyes. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations. Use good personal hygiene practice. See section 8 for recommendations on the use of personal protective equipment.
Conditions for safe storage, incl. any incompatibilities:	No smoking. Keep container tightly closed in a dry and well-ventilated place. Electrical installations / working materials must comply with the technological safety standards. No decomposition if stored and applied as directed. Store away from incompatible materials (see section 10 for incompatibilities).

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Component	Exposure Limits	Basis	Entity
Pentylene Glycol BIO	Not available		

TWA: Time Weighted Average over 8 hours of work.
TLV: Threshold Limit Value over 8 hours of work.
REL: Recommended Exposure Limit
PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.
IDLH: Immediately Dangerous to Life or Health
WEEL: Workplace Environmental Exposure Levels
CEIL: Ceiling

Personal Protection:

Eyes:	Wear tightly fitting safety goggles. Wear face-shield and protective suit for abnormal processing problems. Keep eye wash bottle with pure water nearby.
Inhalation:	Not required; except in case of aerosol formation.
Body:	Wear chemicals-resistant gloves, e.g. safety gloves of nitril (thickness 0.4mm) or of butyl rubber (thickness 0.7mm). The suitability for a specific workplace should be discussed with the glove manufacturers. Wear impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Other:	Use adequate ventilation (such as hoods, point source or whole room ventilation systems for liquids and dust collection systems for dusts) are recommended as the primary method to minimize workplace exposure. Established TLV, TWA, or PEL values should be used when possible. Use good personal hygiene practices. Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear liquid	**Vapor Pressure (68°F/20°C:**	0.015 hPa / 0.011 mmHg
Odor:	Characteristic	**Relative Vapor Density:**	Not determined
Odor Threshold:	No data available	**Evaporation Rate:**	Lower than the evaporation rate of butyl acetate = 1
Color:	Colorless	**Flammability:**	Not determined.
Molecular Weight:	104.15 g/mol	**Upper/lower Explosive Limit:**	Vapors may form explosive mixtures with air.
pH:	7.5	**Flash Point:**	> 212°F/100°C
Boiling Point/Range:	408.9°F / 209.4°C (1,013 hPa)	**Specific Gravity:**	No data available
Melting/Freezing Point:	Not determined.	**Water Solubility (68°F/20°C):**	1,000 g/l completely miscible
Relative Density (68°F/20°C):	0.9660 - 0.9760 (1,013 hPa) relation to density of water at 4°C	**Self-Ignition:**	716°F / 380°C (1,013.25 hPa) Method: DIN 51794; GLP: no
Partition Coefficient: n-octanol/water (77°F/25°C):	log Pow: 0.06	**Decomposition Temperature:**	Not determined
Dynamic Viscosity:	77.1 mPa.s (20°C) 22.9 mPa.s (40°C)	**Explosive Properties:**	Not classified as explosive
Kinematic Viscosity:	24 mm2/s (40°C) 79.4 mm2/s (20°C)	**Oxidizing Properties:**	Not classified as oxidizing.

10 STABILITY AND REACTIVITY

Reactivity:	No decomposition if stored and applied as directed.
Chemical Stability:	No decomposition if stored and applied as directed.
Hazardous Polymerization:	No data available.
Conditions to Avoid:	No data available.
Incompatible Materials:	Not applicable.
Hazardous Decomposition Products:	No hazardous decomposition products are known.
Possible Hazardous Reactions:	No decomposition if stored and applied as directed.

11 TOXICOLOGICAL INFORMATION

Acute Toxicity:	Not classified due to lack of data.
Skin:	(Rat) LD50 Dermal: > 2,000 mg/kg; Method: OECD Test Guideline 402; GLP: no.
Eyes:	Causes serious eye irritation/damage.
Inhalation:	(Rat) LC50: 7.015 mg/l; Exposure time: 4 hours; Test atmosphere: dust/mist; Method: OECD Test Guideline 403; GLP: no.
Ingestion:	(Rat) LD50 Oral: > 5,000 mg/kg; Method: OECD Test Guideline 401; GLP: no.
Serious Eye Damage/Irritation:	(Rabbit) Result: Eye irritation; Concentration: 100%; Method: OECD Test Guideline 405; GLP: yes.
Carcinogenicity:	Not classified due to lack of data.
Teratogenicity:	No data available.
Germ Cell Mutagenicity:	Genotoxicity in vitro (Ames test): Metabolic activation: with and without metabolic activation; Method: OECD 471; Result: negative; GLP: yes. (Human lymphocytes) In vitro Mammalian Chromosome Aberration Test: Metabolic activation: with and without metabolic activation; Method: OECD 473; Result: Negative; GLP: yes. (Mouse lymphoma L5178Y cells) Mammalian Cell Gene Mutation Test: Metabolic activation: with and without metabolic activation; Method: OECD 476; Result: negative; GLP: yes.
Specific Target Organ Toxicity:	Not classified due to lack of data.
Reproductive Toxicity:	Not classified due to lack of data.
Respiratory/Skin Sensitization:	Based on available data, the classification criteria are not met.
Skin Corrosion/Irritation:	(Humans) Exposure time: 48 hours; Method: Closed patch test; Result: No skin irritation; Concentration: 10%; Solvents: Water. (Rabbit) Exposure time: 4 hours; Method: OECD Test Guideline 404; Result: No skin irritation; Concentration: 100%; Dose: 0.5 ml; GLP: yes.
Aspiration Toxicity:	Not classified due to lack of data.

12 ECOLOGICAL INFORMATION

Ecotoxicity:	No data available.

Aquatic Vertebrate:	(Zebra fish) LC50: > 1,096 mg/l; Exposure time: 96 hours; Test Type: static test; Analytical monitoring: yes; Method: OECD Test Guideline 203; GLP: yes.
Aquatic Invertebrate:	(Daphnia magna) EC50: > 500 mg/l; Exposure time: 48 hours; Test Type: static test; Analytical monitoring: no; Method: 79/831/ECC; GLP: no.
Algae/Aquatic Plants:	(Desmodesmus subspicatus) EC50: 9,334.69 mg/l; End point: Growth rate; Exposure time: 72 hours; Test Type: static test; Analytical monitoring: no; Method: DIN 38412 (part 9); GLP: no. (Desmodesmus subspicatus) EC10: 5,477.33 mg/l; End point: Growth rate; Exposure time: 72 hours; Test Type: static test; Analytical monitoring: no; Method: DIN 38412 (part 9); GLP: no. (Pseudomonas putida) EC50: 10,000 mg/l; Exposure time: 17 hours; Test Type: static test; Analytical monitoring: no; Method: DIN 38412 (part 8); GLP: no.
Persistence and Degradability:	Test Type: Modified OECD screening test; Result: Readily biodegradable; Biodegradation: 73%; Exposure time: 28 days; Method: OECD Test Guideline 301E; GLP: no.
Bioaccumulative Potential:	No data available.
Mobility in Soil:	No data available.
PBT and vPvB Assessment:	This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).
Other Adverse Effects:	No data available.

13 DISPOSAL CONSIDERATIONS

Waste Residues:	Do not dispose of waste into sewer. Discharge into the environment must be avoided. Send to a licensed waste management company. Users should review their operations in terms of the applicable federal/ national or local regulations and consult with appropriate regulatory agencies, if necessary, before disposing of waste product.
Product Containers:	Empty remaining contents. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Where possible recycling is preferred to disposal or incineration. Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies, if necessary, before disposing of waste product container.

The information in section 13 is for the product as shipped. Use and/or alterations to the product may change the characteristics of the material and alter the waste classification and proper disposal methods

14 TRANSPORT INFORMATION

DOT (Dept. of Transportation, USA):	No data available.
TDG (Transportation of Dangerous Goods, Canada):	No data available.
IMDG (International Maritime Dangerous Goods):	Not regulated as a dangerous good.
IATA (International Air Transport Association):	Not regulated as a dangerous good.
ICAO (International Civil Aviation Organization):	No data available.
49 CFR Road Transportation:	Not regulated as a dangerous good.
Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC code:	Not applicable for product as supplied.
Special precautions for user:	Not classified as dangerous in the meaning of transport regulations.

15 REGULATORY INFORMATION

TSCA Inventory Status:	No data available.
Canada (DSL):	No data available.
EU (EINECS):	No data available.
China (IECSC):	No data available.
Australia (AICS):	No data available.
Japan (ENCS):	No data available.
Philippines (PICCS):	No data available.
Korea (ECL):	No data available.
New Zealand:	No data available.

16 OTHER INFORMATION

Revision Date:	12-Mar-2025
Compliance:	This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200
Disclaimer:	This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. Such information is to be the best of the company's knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty or guarantee of any kind, express or implied, is made as to its accuracy, reliability or completeness and we assume no responsibility for any loss, damage or expense, direct or consequential, arising out of use. It is the user's responsibility to satisfy himself as to the suitableness & completeness of such information for his own particular use.