



SAFETY DATA SHEET

According to 1907/2006/EC, Article 31

Fortis PEN

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name:	Fortis PEN
INCI name:	Pentylene glycol
CAS number:	5343-92-0
EC number:	226-285-3

Relevant identified uses of the substance and uses advised against

Identified uses:	Cosmetic industry and industrial use
Uses advised against:	None known

Details of the supplier of the safety data sheet

Manufacturer/Supplier:	CINAGOS SDN BHD
Address:	No 39, Jalan Selat Selatan 7/KS5, Taman Perindustrian Sobena Jaya Pandamaran, 42000 Pelabuhan Klang, Selangor, Malaysia.
Emergency Contact number:	+603 31631679
Website:	www.cinagos.com

SECTION 2: Hazards Identification

Hazard classification:	Eye irritation category 2
Human Health Hazards	
Skin contact:	None identified
Eye contact:	Causes serious eye irritation
Ingestion:	None identified
Physical/Chemical Hazards:	No data available
Health hazards:	Swallow might be harmful
Environmental Hazards:	No data available





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SECTION 3: Composition/information on ingredients

Chemical Name	CAS No.	EINECS No.	Weight (%)
Pentane-1,2-diol	226-285-3	5343-92-0	≥99.8

SECTION 4: First aid measures

General Advice:	If you feel unwell, seek medical advice.
Skin Contact:	Take off immediately all contaminated clothing. Rinse skin with soap and plenty of water. If the person feel uncomfortable, please seek medical attention promptly.
Eye Contact:	Rinse immediately with plenty of water for 20 minutes. Remove contact lenses if convenient and continue to rinse. If eye irritation persists, seek medical attention in time.
Inhalation:	Remove person to fresh air and keep comfortable for breathing. If symptoms do not resolve, seek medical advice/medical attention.
Ingestion:	Gargle your mouth and drink plenty of water. Do not feed anything through the mouth to unconscious patients, and seek medical attention promptly.
Most important symptoms and effects, both acute and delayed:	In all cases of doubt, or when symptoms persist, seek medical advice.
Self-protection of the first aider:	Do not eat, drink or smoke. Enhance ventilation. Avoid contact with skin and eyes. Avoid inhalation. Protective equipment should be worn when entering the scene of the accident.
Note to physicians:	No data.

Indication of any immediate medical attention and special treatment needed

Hazards:	Seek medical advice if unwell.
Treatment:	Treat symptomatically



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SECTION 5: Firefighting measures

General fire hazards: None known

Extinguishing media

Suitable extinguish media: Applicable fire extinguishing agent: Extinguish the fire with water spray jet, alcohol-resistant foam, dry chemical or carbon dioxide fire extinguisher.

Unsuitable extinguishing media: None known.

Special hazards arising from the substance or mixture: Under conditions giving incomplete combustion, hazardous gases produced may consist of: carbon monoxide (CO), carbon dioxide (CO₂).
Combustion gases of organic materials must in principle be graded as inhalation poisons. Vapours are heavier than air and may spread along floors.

Advice for firefighters

Put out the fire in the upwind direction.
Fire fighter protection should include a self-contained breathing apparatus (NIOSH-approved or EN 133) and full fire-fighting turn out gear.
Cool containers / tanks with water spray.
Dike and collect water used to fight fire.
Keep people away from and upwind of fire.
Collect contaminated fire extinguishing water separately, it could not be discharged into the sewer to prevent environmental pollution.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for fire-fighters: Self contained breathing apparatus and full protective clothing must be worn in case of fire

SECTION 6: Accidental release measures

General measures: Mark the danger area. Exposure to heat: have neighbourhood close doors and windows. Exposure to fire/heat: consider evacuation. Wash contaminated clothes.

Personal precautions, protective equipment and emergency procedures: For non-emergency personnel: For personal protective equipment see section 8. Avoid contact with skin and eyes. Avoid breathing vapors or mists. Keep people away from and



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	upwind of spill/leak. Ensure adequate ventilation, especially in confined areas. Keep away from heat and sources of ignition. For emergency responders: Personal protection see section "Exposure controls / personal protection".
Environmental precautions:	Prevent further leakage or spillage. Do not discharge product into the aquatic environment without pretreatment (biological treatment plant).
Methods for cleaning up:	Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. If liquid has been spilt in large quantities clean up promptly by scoop or vacuum. Dispose of in accordance with local regulations. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours).
Prevention of secondary hazards:	No data available.
Notification procedures:	In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations

SECTION 7: Handling and storage

Precaution for safe handling:	Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Provide sufficient air exchange and/or exhaust in work rooms. Hygiene measures: when using, do not eat, drink or smoke. Take off all contaminated clothing immediately. Wash hands before breaks and immediately after handling the product. Incompatible products: strong oxidizing agents.
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Conditions for safe storage, including any incompatibilities

Heat and ignition sources:	Keep away from sources of ignition - No smoking. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). In case of fire, emergency cooling with water spray should be available. Ground and bond containers when transferring material.
Information on mixed storage:	It should be stored separately from the prohibited ingredients, and should not be mixed (see Section 10 for the prohibited ingredients).
Storage area:	Keep container tightly closed. Store in a cool and well-ventilated warehouse. Handle and open container with care. Keep at temperatures between 15 and 32 °C (60 and 90 °F).



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Special rules on packaging:	Closed, correctly labelled, meet the legal requirements Separated from incompatible materials (see section 10).
Others	Equipped with corresponding varieties and quantities of fire-fighting equipment

SECTION 8: Exposure controls/personal protection

Admissible solution

Not contain substances with occupational exposure limits.

Control parameters

Occupational exposure limits: No data available.

Exposure controls

Personal protective equipment:	Gloves. Protective clothing. Safety glasses
Materials for protective clothing:	Give good resistance: nitrile rubber
Hand protection:	Wear protective gloves. Recommendations are listed below. Other protective material may be used, depending on the situation, if adequate degradation and permeation data is available. If other chemicals are used in conjunction with this chemical, material selection should be based on protection for all chemicals present. Suitable material nitrile rubber: Evaluation according to EN 374: level 6. Glove thickness approx 0,55 mm. Break through time > 480 min. Suitable material polyvinylchloride / nitrile rubber: Evaluation according to EN 374: level 6. Glove thickness approx 0,9 mm. Break through time > 480 min.
Eye protection:	Tightly fitting safety goggles. In addition to goggles, wear a face shield if there is a reasonable chance for splash to the face. Equipment should conform to EN 166.
Skin and body protection:	Impervious clothing. Wear face-shield and protective suit for abnormal processing problems.
Respiratory protection:	For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type



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OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges.

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).



SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state:	Colorless to slightly yellow liquid
Appearance:	Colorless to slightly yellow liquid
Colour:	Colorless to slightly yellow
Odour:	No data available
pH(25°C±2°C):	No data available
Melting point/freezing point:	-40°C
Boiling point:	209 °C
Flash point:	110 °C (at 1013 hPa)
Flammability limit:	No data available
Vapor pressure:	0.015 hPa at 20 °C
Vapor density:	No data available
Specific gravity (20°C):	0.98 g/cm ³
Water solubility:	Miscible
Partition coefficient: n-octanol/water:	log K _{ow} = 0.06 (at 25°C)
Autoignition temperature:	380 °C at 1013 hPa
Decomposition temperature:	No data available
Refractive index(20°C±5°C):	No data available
Viscosity	77.1 mPa · s (dynamic) (at 20°C)
Molecular weight	104.1476

SECTION 10: Stability and reactivity

Chemical stability:	The product is stable when stored and used at normal ambient temperature.
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Conditions to avoid:	Ignition sources (heat, sparks or flames)
Incompatible materials:	Strong oxidizing agents
Hazardous decomposition products:	Irritating and/or toxic gases

SECTION 11: Toxicological information

Acute toxicity:	Oral : LD50 = 5000 mg/kg bw (rat)
Skin corrosion/irritation:	No data available
Serious eye damage/irritation:	No data available
Respiratory or skin sensitisation:	No data available
Germ cell mutagenicity:	No data available
Carcinogenicity:	No data available
Reproductive toxicity:	No data available
STOT-single exposure:	No data available
STOT-repeated exposure:	No data available
Aspiration hazard:	No data available

SECTION 12: Ecological information

Ecotoxicity:	Fish : 96hr-LC50(Brachydanio rerio) > 1096 mg/L (OECD Guideline 203, GLP) Invertebrates : 48hr-EC50(Daphnia magna) > 500 mg/L (EU Directive 79/831/EWG Appendix V, part C (draft, May 1984)) Algae : 72hr-EC50(Scenedesmus subspicatus) = 9334.69 mg/L (DIN 38412 part 9)
Persistence and degradability:	Persistence : Low persistency (log Kow is less than 4 estimated.) (log Kow = 0.06) Degradability : Not available
Bioaccumulation:	Bioaccumulation : With a measured log Kow of 0.06 the substance is not considered to have bioaccumulation potential Biodegradation : readily biodegradable but failing 10-day window. (OCED Guideline 301 E).
Mobility in soil:	No data available

SECTION 13: Disposal considerations

Waste disposal methods:	Disposal required in compliance with all waste management related state and local regulations. The choice of the appropriate method of disposal depends on the product
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composition by the time of disposal as well as the local statutes and possibilities for disposal..

Precautions for waste disposal: Refer to relevant national and local laws and regulations before disposal. Environmental pollution should be avoided during disposal.

See section 8 for security precautions for disposition personnel.

SECTION 14: Transport information

UN number:	None
UN proper shipping name:	None
Transport hazard class(es):	None
Packing group:	None
Special precautions:	Not applicable.
Marine pollutant (Yes/No):	No.

SECTION 15: Regulation information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Inventory status	Listed in: US(TSCA), Europe (EINECS), New Zealand (NZIoC), Philippines (PICCS), Canada(DSL), China (IECSC), Australia (AICS), Japan (ENCS).
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SECTION 16: Other information

Training advice:	No supplementary information available
Revision information:	New SDS
Issue date:	08/1/2025
Other information:	No supplementary information available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a



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guidance for safe handling, use, storage, transportation, disposal and release, and is not to be considered a warranty or quality specification. The 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 process, unless specified in the text. All items may have unknown hazards. Although some hazards are described in the text, we cannot guarantee that these are the only hazards that exist. Therefore, they should be used with caution

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet:

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service

LD50: Lethal dose, for 50% of test population

NOAEL: No observed adverse effect level

EINECS: European Inventory of Existing Commercial Chemical Substances.

TSCA: United States Toxic Substances Control Act Inventory.

DSL: Canadian Domestic Substances List.

IECSC: China Inventory Of Existing Chemical Substances.

NZIoC: New Zealand Inventory of Chemicals.

PICCS: Philippines Inventory of Chemicals and Chemical Substances.

KECI: Existing and Evaluated Chemical Substances.

AICS: Australia Inventory of Chemical Substances.