

Material Safety Data Sheet

1. Identification of Substance /Preparation and Company

- 1.1 Product Name : PL-320N Light fastness enhancing agent
- 1.2 Another Name : —
- 1.3 Recommend Usage : —
- 1.4 Information of Manufacturer or Supplier :
GRACESS INTERNATIONAL CO., LTD. /
29F-3, No. 86, Sec. 1, Beixin Rd., Xindian Dist., New Taipei City 231003, Taiwan /(02)2673-3998
- 1.5 Emergency Phone/Fax : (02)26973-3998/(02)2673-3995

2. Hazards Identification data

- 2.1 Hazard classification: not listed
- 2.2 Label: -
Symbol: -
Caution: -
Hazard Warning: This product is non-toxic to human body. May irritate eyes. Long term contact may cause irritation to skin. Swallowing may cause nausea, vomit, or diarrhea.
Physical and chemical hazard : —
Hazard precaution measure: —
- 2.3 Other Hazards: -

3. Composition/ Information of Ingredients

Chemical category	compound	
Hazard ingredient	-	
Ingredient	CAS Number	%
Benzothiazole derivative dispersion	95-16-9	10~12
Bronopol	52-51-7	10~12
Water	7732-18-5	77~79

4. First Aid measure

- 4.1 First aid measure:
Eyes: Flush eyes with plenty of water for 10 minutes and get medical attention.
Skin: Take off the contaminated clothes and footwear. Flush with water and soap for at least 10 minutes.
Inhalation: move to fresh air. Oxygen therapy if dyspnea. Artificial breathing if breath stop. And get medical attention immediately.
Ingestion: get medical attention at once.
- 4.2 Major symptoms and hazard effect: dyspnea
- 4.3 Protection to emergency medical technician: —
- 4.4 Suggestion to doctors: - There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

5. Fire Fighting Measure

- 5.1 Extinguishing Media: Dry powder, CO2, Foam, mist water, sand

5.2 Possible danger during fire distinguishing: incombustible to open fire. Stand to 1500°C. May not change nature if contacts with water, acid, alkali, and oxidant.

5.3 Special Fire Fighting Process: —

5.4 Special protective equipment to firefighters: Use self-contained breathing apparatus when fighting fires in enclosed areas

5.5 Dangerous burned residuals : CO, CO₂, nitrogen compound

6. Accidental release measures

6.1 Person precaution: wear personal protection apparatus, and evacuate personnel to upwind and safe area.

6.2 Environment attention: Prevent the leakage from permeating into sewer and groundwater.

6.3 Clean Method: Use suitable absorbent to clean the waste, like sand or wood dust

7. Handling and Storage

7.1 Handling: Avoid contacting skin, eyes and clothes. Keep workplace ventilated.

7.2 Storage: Storage in a cool and ventilated place under 5-30°C based on non-toxic and non-dangerous chemicals. Avoid contacting heat and sources of ignition.

8. Exposure Controls

8.1 Engineering Control: Partial Ventilation facility

8.2 Hygienic standard : As general chemicals

8.3 Personal Protection:

Eye Protection: Wear chemical safety goggles.

Hand Protection: protective gloves

Work clothes : Long sleeved clothes and shoes.

Other: Avoid skin and body direct contact. Change clothes after working.

8.4 Hygiene Procedure : Flush with water after operation.

9. Physical and Chemical Properties

•Physical State	Dispersion liquid	•Molecular Mass(%)	-
•color	White to light yellow	•pH	7.0-9.0
•Ionic Nature	Anion	•Viscosity	-
•Solid contents	21~23%	•Boiling Point	
•Flammability (solid、 gas)	-	•Solubility	soluble with water
•Decomposition Temperature	-	•Vapor Density	-
•Auto-Ignition Temperature	-	•Solubility	-
•Vapor Density	-	•Chemical Reaction	-
•Density	1.0g/mL	•Evaporation Rate	-
•log Kow	-	•Flash Point(°C)	

10. Stability and Reactivity

10.1 Stability: stable

10.2 Possibility of hazardous reactions: stable

10.3 Conditions to avoid: High temperature, sources of ignition

10.4 Incompatible material: oxidant, reducing agent, electrolyte, strong alkali, strong acid, cationic agent

10.5 Hazardous Decomposition : CO, CO₂, nitride

11. Toxicological Information

11.1 Acute Oral Toxicity:

LC50 rat : over 2000mg/kg (rabbit)

11.2 Over exposure influence and symptom : may cause irritation to eyes

Other Hazard: —

12. Ecological Information

Toxicity : static test, half lethal concentration (LC50) :

Fathead minnow 96h :over 300mg/L

Aquatic invertebrate daphnia magna 48h : over 500mg/L

Biodegradability : Good biodegradability under normal condition.

Note : —

13. Disposal Considerations

Waste Disposal: chemical waste cannot be discharged into cesspool.

Disposal method : Dispose the waste under related regulation of local authorities.

Note : flush the container with water.

14. Transport Information

14.1 UN No.: not listed in “List of Dangerous Goods” GB 12268-2005

14.2 Proper shipping Name : —

14.3 Transport Hazard Class: —

14.4 Packing group: plastic barrel

14.5 Marine Pollutant (Yes / No): —

14.6 Special transport way and precaution: If package is broken, do not transport.

15. Regulatory Information

Workplace safe use of chemicals rule (1996) No.423 is mainly for the safe use of hazardous chemicals, production, storage, transport, handling, etc.

Chemical classification and hazard indication rule (GB13690-2009)

General Rules for Preparation of Chemical Safety Data Sheet (GB16483-2000)

Rules on Road Traffic Safety

16. Other Information

Form Maker	GRACESS INTERNATIONAL CO., LTD. 29F-3, No. 86, Sec. 1, Beixin Rd., Xindian Dist., New Taipei City 231003, Taiwan /(02)2673-3998
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LIMITED WARRANTY INFORMATION – PLEASE READ BEFORE ANY APPLICATION:

The data presented in this brochure are in accordance with the present state of our knowledge but do not absolve the user from carefully

checking all supplies immediately on receipt.

- We reserve the right to alter product constants within the scope of technical progress or new developments.
- The recommendations made in this brochure should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used.
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- We disclaim any responsibility for any dispute regarding product quality between agent and end user.
- Our sole warranty is that our products will meet the sales specifications in effect at the time of shipment.